

77 01992

# santa rosa general plan

INSTITUTE OF GOVERNMENTAL  
STUDIES LIBRARY

JUN 2 1977

UNIVERSITY OF CALIFORNIA

**DRAFT**

City of Santa Rosa.  
Department of Community Development  
May 1977





UNIVERSITY OF CALIFORNIA  
JOE PHILIPPO HALL  
INSTITUTE OF GOVERNMENTAL STUDIES LIBRARY  
BERKELEY, CA 94720

## SANTA ROSA AREA GENERAL PLAN

MAY 1977

*City planning Santa Rosa*

Comprehensive Planning Division  
Community Development Department

Livingston & Associates

Comarc Design Systems  
Envicom Corporation  
Gruen & Gruen and Associates

77 01992

INSTITUTE OF GOVERNMENTAL STUDIES LIBRARY  
109 PHILOSOPHY HALL  
UNIVERSITY OF CALIFORNIA  
BERKELEY, CA 94720

WALSH JAMES ALAN 1931-1971

MAY 1971

Livingston & Associates

Department of Planning Division  
Community Development Department

General Inquiry System  
Eastern Corporation  
Brown & Brown and Associates

## TABLE OF CONTENTS

|                                                           |     |
|-----------------------------------------------------------|-----|
| GENERAL PLAN UPDATE PROGRAM                               | 1   |
| LAND USE ELEMENT                                          | 3   |
| Introduction                                              | 4   |
| Basis for Land Use Element                                | 4   |
| Employment and Population Projections                     | 6   |
| Economic Development and Employment                       | 7   |
| Population Growth                                         | 9   |
| Land Use Proposals                                        | 15  |
| Land Use Objectives and Policies                          | 17  |
| Proposed Land Uses                                        | 23  |
| Major Land Use Proposals by Sub-Areas                     | 32  |
| CIRCULATION/TRANSPORTATION ELEMENT                        | 43  |
| Introduction                                              | 45  |
| Basis for the Circulation/Transportation Element          | 45  |
| Circulation/Transportation System Proposals               | 51  |
| Circulation/Transportation System Objectives and Policies | 51  |
| Circulation System Characteristics                        | 57  |
| Circulation System Proposals                              | 70  |
| Implementation                                            | 75  |
| URBAN DESIGN ELEMENT                                      | 87  |
| Introduction                                              | 89  |
| Basis for Urban Design Element                            | 90  |
| Urban Design Element Objectives and Policies              | 95  |
| Urban Design Guidelines                                   | 99  |
| HOUSING ELEMENT                                           | 129 |
| OPEN SPACE/CONSERVATION ELEMENT                           | 133 |
| Introduction                                              | 135 |
| Objectives and Policies                                   | 136 |
| Open Space Zoning Classifications                         | 142 |
| Conceptual Open Space Diagram                             | 143 |
| SEISMIC/SAFETY ELEMENT                                    | 151 |
| Introduction                                              | 153 |
| Existing Conditions                                       | 153 |
| Summary of Technical Conclusions                          | 154 |
| Hazard Delineation                                        | 157 |
| Risk                                                      | 157 |
| Objectives and Policies                                   | 160 |



## TABLE OF CONTENTS

|                                                                    |     |
|--------------------------------------------------------------------|-----|
| NOISE ELEMENT                                                      | 167 |
| Introduction                                                       | 169 |
| Community Noise Environment                                        | 171 |
| Noise and the Planning Process                                     | 184 |
| Objectives and Policies                                            | 185 |
| Appendix A                                                         | 187 |
| Appendix B                                                         | 188 |
| Glossary                                                           | 190 |
| SCENIC HIGHWAYS ELEMENT                                            | 193 |
| Introduction                                                       | 195 |
| Scenic Roadways Plan                                               | 199 |
| Objectives and Policies                                            | 199 |
| Scenic Roadways Plan Diagram                                       | 209 |
| PARK AND RECREATION ELEMENT                                        | 213 |
| Introduction                                                       | 215 |
| Objectives, Policies and Standards                                 | 215 |
| Existing Park and Recreation Facilities                            | 218 |
| Present and Future Needs                                           | 218 |
| Park and Recreation Plan                                           | 218 |
| Accomplishing the Plan                                             | 223 |
| COMMUNITY FACILITIES ELEMENT                                       | 225 |
| Introduction                                                       | 227 |
| SOCIAL ELEMENT                                                     | 229 |
| Introduction                                                       | 231 |
| Relationship Between Social and Physical Planning                  | 233 |
| The Existing Social Service Delivery System                        | 234 |
| City's Role in Social Planning and the Delivery of Social Services | 235 |
| Objectives and Policies                                            | 237 |
| Action Plan                                                        | 240 |

## LIST OF TABLES

### LAND USE ELEMENT

|                                                                 |    |
|-----------------------------------------------------------------|----|
| Santa Rosa Planning Area Employment Projections                 | 8  |
| Santa Rosa Planning Area Population Forecasts by Sub-Area, 2000 | 10 |
| Santa Rosa Planning Area Housing Units by Sub-Area, 2000        | 14 |
| Allocation of New Housing Units by Sub-Area, 2000               | 27 |

### CIRCULATION/TRANSPORTATION ELEMENT

|                                     |    |
|-------------------------------------|----|
| Santa Rosa Trafficways Improvements | 77 |
|-------------------------------------|----|

### URBAN DESIGN ELEMENT

|                           |     |
|---------------------------|-----|
| Illustrative Tree Species | 121 |
|---------------------------|-----|

### SEISMIC/SAFETY ELEMENT

|                                           |     |
|-------------------------------------------|-----|
| Taxonomy of Critical Facilities           | 159 |
| Acceptable Risk Levels for Seismic Safety | 160 |
| Structural Inspection Sequence Matrix     | 161 |

### SCENIC HIGHWAY ELEMENT

|                           |     |
|---------------------------|-----|
| Scenic Roadway Indicators | 203 |
|---------------------------|-----|



## LIST OF FIGURES

### LAND USE ELEMENT

|                    |    |
|--------------------|----|
| Planning Sub-Areas | 11 |
|--------------------|----|

### CIRCULATION/TRANSPORTATION ELEMENT

|             |    |
|-------------|----|
| Trafficways | 81 |
| Transit     | 83 |
| Bikeways    | 85 |

### URBAN DESIGN ELEMENT

|                      |     |
|----------------------|-----|
| Existing Visual Form | 93  |
| Street Lighting Plan | 123 |

### OPEN SPACE/CONSERVATION ELEMENT

|                                    |     |
|------------------------------------|-----|
| Conceptual Open Space Plan Diagram | 145 |
|------------------------------------|-----|

### NOISE ELEMENT

|                                                                        |     |
|------------------------------------------------------------------------|-----|
| Example of Caltrans Noise Contour Map                                  | 173 |
| Selected Noise Contours From Freeways and State Highways               | 175 |
| Present and Projected Traffic Noise From Expressways and Major Streets | 177 |
| Railroad Noise Exposure Contours                                       | 181 |
| Ultimate Noise Exposure Forecast Sonoma County Airport                 | 183 |

### SCENIC HIGHWAY ELEMENT

|                                 |     |
|---------------------------------|-----|
| Existing Scenic Routes          | 197 |
| Scenic Roadways Visual Analysis | 201 |
| Scenic Roadways Plan            | 211 |

### PARK AND RECREATION ELEMENT

|                                         |     |
|-----------------------------------------|-----|
| Existing Park and Recreation Facilities | 219 |
| Proposed Park Plan                      | 221 |



## THE GENERAL PLAN UPDATE PROGRAM

Work to update the Santa Rosa Area General Plan was initiated in September 1975. During this initial phase, the following were accomplished:

1. Approval of the General Plan Update Work Program.
2. Awarding of consultant contracts with Livingston & Associates and Envicom Corporation.
3. Printing and distribution of the Current General Plan report.
4. Printing and distribution of the Issues, Options, Opportunities report.
5. Organization of the General Plan Update Citizen Committee.

From October 1975 to April 1976, the Citizen Committee met on numerous occasions to develop goals for the General Plan. During this period staff and a consultant completed a random sample citizen survey. The two reports prepared during this period were as follows:

1. General Plan Update Citizen Committee Goals report, February 9, 1976.
2. Sample Survey of Important Planning Issues and Choices, Gruen & Gruen and Associates, February 24, 1976.

Following completion of the Goal reports, staff and consultants prepared draft General Plan elements. These were submitted to the Planning Commission on the following dates:

1. August 26, Land Use, Circulation and Urban Design.
2. September 9, Seismic/Safety and Noise.
3. September 16, Social, Scenic Highways, Park and Recreation.

The General Plan Update Citizen Committee then met to review the draft elements and issue a report and recommendations to the Planning Commission. The Committee's report was released on November 12, 1976.

The Planning Commission held three public hearings to receive public comment regarding the proposed elements. These hearings were held on December 2, 9 and 16, 1976. The Department prepared a summary of and response to site-specific comments. This report is dated February 2, 1977.

Planning Commission work sessions to discuss public comments and General Plan proposals were held February 7, 24, and March 3, 17 and 31, 1977.

The Planning Commission met with the Sonoma County Planning Commission at a joint work session on April 21, 1977, at which time the discussion focused on achieving a compatible "fit" of the two plans of the Santa Rosa urbanized area.

The Department has spent the months of April and May 1977 preparing the General Plan document and the Land Use Plan. The Planning Commission intends to hold one more public hearing prior to forwarding plan documents and recommendations to the City Council.

Digitized by the Internet Archive  
in 2025 with funding from  
State of California and California State Library

<https://archive.org/details/C123320123>



## INTRODUCTION

The State Planning Law requires that all city and county general plans include a land use element. The purpose of this element is to provide a framework for the future development of the community. It should be based on a study of the community's needs and resources, and it should be consistent with the state's overall development goals. The land use element is a key component of the general plan, and it is essential for the community to have a clear vision of its future land use patterns.

Although it is only one of the elements of the general plan, the land use element is a critical one. It is the only element that is specifically required by the state. It is also the only element that is most visible to the public. The land use element is a statement of the community's vision for its future land use patterns, and it is a key tool for the community to achieve its goals.

In developing the land use element, the community should consider the following factors: the community's needs and resources, the state's overall development goals, and the community's vision for its future land use patterns. The land use element should be based on a study of these factors, and it should be consistent with the state's overall development goals. The land use element is a key component of the general plan, and it is essential for the community to have a clear vision of its future land use patterns.

## LAND USE ELEMENT

The land use element is a statement of the community's vision for its future land use patterns. It is a key component of the general plan, and it is essential for the community to have a clear vision of its future land use patterns. The land use element should be based on a study of the community's needs and resources, and it should be consistent with the state's overall development goals. The land use element is a key tool for the community to achieve its goals.

The land use element is a statement of the community's vision for its future land use patterns. It is a key component of the general plan, and it is essential for the community to have a clear vision of its future land use patterns. The land use element should be based on a study of the community's needs and resources, and it should be consistent with the state's overall development goals. The land use element is a key tool for the community to achieve its goals.

## THE LAND USE ELEMENT

The land use element is based on the following principles: the community's needs and resources, the state's overall development goals, and the community's vision for its future land use patterns.

Public participation is reflected in the following reports, studies, and hearings:

General Plan Update Committee's Report of February 9, 1978.

County Survey of Important Planning Report and Changes of February 23, 1978.





## INTRODUCTION

The State Planning Law requires that all city and county general plans include a land use element that designates the proposed general distribution and location of the uses of land for housing, business, industry, open space (including agriculture, natural resources, recreation and enjoyment of scenic beauty), education, public buildings and grounds, waste disposal facilities, and other categories of land uses. Standards of population density and building intensity also are required to be indicated. The essence of the planning process is to inter-relate all of the different factors which affect the jurisdiction's future population growth, urban development, and open space preservation policies.

Although it is only one of 12 elements which comprise the Santa Rosa General Plan, the Land Use Element constitutes the vital core of the plan. It is primarily the Land Use Element which brings together a vast array of findings, goals, policies, and proposals, and then fits together the pieces in a harmonious mosaic. As stated by the State's Guidelines for Local General Plans:

In differing degrees all of the elements of the general plan will contain policies or proposals which relate to the land use element. The land use and circulation element are almost inseparably related. The nature, routing and design of circulation facilities are among the major determinants of the form of human settlement and of the uses of the land. Conversely, land uses create demand for circulation facilities.

The safety and seismic safety elements provide information and policies regarding natural and man-made hazards which need to be recognized in the land use element. Together with the open space element, they define lands to be reserved in a natural state and other lands for urban purposes or for production of food, fiber or minerals. Considered along with the conservation element, they define criteria and standards and identify programs needed to control the impact of man's activities on the natural environment.

None of the General Plan elements can stand alone, and it is the Land Use Element which synthesizes the proposals of each individual element into an area-wide plan that will set the future urban development and open space preservation pattern of the Santa Rosa area.

## BASIS FOR LAND USE ELEMENT

The Land Use Element is based on goals, policies, proposals and projections derived from four primary sources:

1. Public participation as reflected in the following reports, recommendations and hearings:
  - . General Plan Update Citizens Committee Goals Report of February 9, 1976.
  - . Sample Survey of Important Planning Issues and Choices of February 24, 1976.



- . General Plan Update Citizen Committee Report of November 12, 1976, regarding the proposed General Plan elements.
  - . Planning Commission General Plan Update Public Hearings held on December 2, 9, and 16, 1976.
  - . Staff Response to Site Specific Comments on Proposed General Plan Elements of February 2, 1977.
  - . Staff Response to General Comments on Proposed General Plan Elements of February 9, 1977.
2. Goals and policies of other elements of the General Plan, such as Open Space/Conservation, Seismic Safety, Noise, Scenic Highway, Parks/Recreation and Urban Design, whose construction was based upon the synthesis and analysis of significant environmental and agricultural data.
  3. Proposals of other elements of the General Plan, including Circulation/Transportation, which are aimed at addressing and resolving specific needs of residents of the planning area. The Community Facilities Element and the Housing Element, both of which will be updated following adoption of the General Plan, also fall in this category. In addition, the proposed Sonoma County Community Development Element, Transportation Element, Environmental Resources Management Element, and Land Use Plan were considered.
  4. Employment and population projections to the year 2000.

#### EMPLOYMENT AND POPULATION PROJECTIONS

Santa Rosa remains the unchallenged capital of the North Bay subregion. Its traditional role as the trade center for Sonoma, Mendocino, Napa, and Lake Counties was strengthened in the 1960's by the establishment of Coddington Regional Shopping Center with its branches of San Francisco department and specialty stores. The city's retail strength will be reinforced by the downtown Santa Rosa Center Project. Construction of offices and financial institutions, the new Federal Office Building, and the future State Office Building in the downtown redevelopment area have anchored Santa Rosa's dominant position. However, the city has only 10 percent of its work force employed in manufacturing compared with 22 percent in all California urbanized areas. Expansion of the new Hewlett Packard Plant to its intended maximum will add only 3,500 to the present area-wide total of about 4,000 industrial holders.

Employment in the retail, business services, finance, real estate, government and construction sectors largely is dependent on the size of the trade area's population. So Santa Rosa must experience growth in industrial or office jobs which export goods or services to other areas if it is to overcome its present employment deficiency. The projected increase at Hewlett Packard is an example of this kind of expansion.



In the past decade or so, Santa Rosa has exhibited symptoms of possibly becoming predominantly a commuter suburb rather than a self-contained sub-regional center. About eight percent of Santa Rosa's employed residents now commute to jobs in Marin County and in San Francisco. The reasons for this trend are clear. Large amounts of vacant land which are available for residential development within commute distance of San Francisco are now limited mainly to eastern Alameda and Contra Costa Counties and the North Bay. High land prices and construction costs in Marin County have been driven even higher by water and sewer connection moratoria and by restrictive zoning controls. The Petaluma area was the first to feel the impact of Marin's growth limitation policies. The City fought back with its now-famous building permit rationing system. More than thirty-seven percent of employed Sonoma County residents living south of the Santa Rosa area now work outside of the county.

The logical next stop to the north was Santa Rosa. Here, in an area of considerable natural beauty with a pleasant climate, there are large amounts of readily developable land with water supply and sewage disposal potential to serve a doubling of population. Furthermore, the provision of fast, comfortable express bus service by Golden Gate Transit in the past few years has made commutation an easier alternative than it was in the past.

#### ECONOMIC DEVELOPMENT AND EMPLOYMENT

If it is not to become predominantly a commuter suburb, Santa Rosa must seek and encourage new employment in "exporting" businesses and industries. Until the advent of Hewlett Packard, most of the new jobs since 1960 have been in the white collar categories with a relatively high proportion of female workers. About 800 are employed in electronics and other small manufacturing plants, and Hewlett Packard ultimately will employ 4,500 workers, many of them women if it follows the usual pattern of the electronics industry. Santa Rosa mainly has attracted new businesses and industries that have caused few social or environmental problems except inevitable ones like traffic congestion. Manufacturing plants with large numbers of jobs for unskilled workers might have generated significant minority in-migration. Tourist-oriented businesses would have brought more low-paid jobs with seasonal or cyclical unemployment.

If economic stability as well as growth is to be encouraged, new employment should continue to be mainly in the white collar and clean industry categories. Some may argue that with its present unemployment problem, Santa Rosa cannot afford to be too selective about the kinds of new business and industry it welcomes. However, it must be recognized that the City's principle attraction has been its freedom from the social and environmental problems that a less selective policy could cause.

In addition to a potential labor force, adequate housing, public facilities and utilities, and a pleasant environment, of course there must be a reasonably adequate choice of sites to accommodate new industrial and commercial development. The present General Plan and County zoning within the planning area designate as potential industrial sites the



TABLE 1. SANTA ROSA PLANNING AREA EMPLOYMENT PROJECTIONS

| Employment Category                       | 1972   |         | 1980   |         | 1990   |         | 2000   |         |
|-------------------------------------------|--------|---------|--------|---------|--------|---------|--------|---------|
|                                           | Jobs   | Percent | Jobs   | Percent | Jobs   | Percent | Jobs   | Percent |
| Agriculture, forestry, fishing and mining | 1,075  | 3.0     | 986    | 2.0     | 866    | 1.3     | 781    | 1.1     |
| Manufacturing                             | 3,490  | 9.8     | 5,808  | 11.7    | 8,801  | 14.2    | 10,736 | 14.7    |
| Wholesale, construction                   | 1,765  | 4.9     | 2,359  | 4.8     | 3,084  | 5.0     | 3,558  | 4.9     |
| Retail                                    | 6,168  | 17.3    | 10,820 | 21.9    | 13,234 | 21.4    | 15,833 | 21.7    |
| Services <sup>a</sup>                     | 13,557 | 38.0    | 16,072 | 32.5    | 19,390 | 31.3    | 22,012 | 30.2    |
| Transportation, Utilities, Communication  | 2,287  | 6.4     | 2,700  | 5.4     | 3,135  | 5.1     | 3,615  | 5.0     |
| Institutions <sup>b</sup>                 | 6,508  | 18.2    | 9,525  | 19.3    | 11,937 | 19.3    | 14,828 | 20.3    |
| Recreation/Amusement                      | 863    | 2.4     | 1,203  | 2.4     | 1,434  | 2.3     | 1,534  | 2.1     |
| TOTAL EMPLOYMENT                          | 35,713 | 100.0   | 49,473 | 100.0   | 61,881 | 100.0   | 72,913 | 100.0   |

(a) Includes finance, insurance, real estate, business, repair services, personal services and professional services.

(b) Includes health and education services and government.

Source: University Research Center (Santa Rosa) for JHK Associates, "Sonoma County Transportation Study", Plan 430, 1975



Piner Road area between U.S. 101 and the railroad, lands on both sides of U.S. 101 south of Route 12, sites on the south side of Route 12 west of Brittain Lane, the former Naval Air Station, and a portion of the County Airport. It has been said that these sites are inadequate to attract new industry. While the amount of land available at these locations probably far exceeds foreseeable demand, some of the locations may be lacking in the kinds of amenities or other site advantages offered by competing industrial sites in more urbanized Bay Region counties. Attractive industrial park sites are available in the Fountain Grove area, and the desirability of office and retail sites in the downtown redevelopment area is evidenced by the fact that committed developments there will create 300 - 500 jobs, in addition to the expected 1,000 - 1,200 in the Santa Rosa Center. The City's central district urban renewal program has been remarkably successful, particularly in the light of keen competition from Coddington. Attracting a regional retail center with three major chain department stores will be a coup that few cities have been able to achieve, although many have tried. Commercial sites also remain to be developed in the bustling Coddington Regional Shopping Center-office area.

Employment projections were prepared by the University Research Center (Santa Rosa) for the Sonoma County Transportation Study (1975). Review of these figures indicates that the projections are consistent with a policy to attract new business and industry selectively. As shown in Table 1, employment in the planning area can be expected to more than double from the 35,700 jobs in 1972 to the projected 72,900 in 2000. A gain of about this magnitude will be necessary if Santa Rosa is not to become predominantly a commuter suburb.

#### POPULATION GROWTH

The latest available population estimate for the planning area shown on the present General Plan (somewhat smaller than the planning area on the County's General Plan) is about 99,600. In 1967, the City's plan projected a 1990 population of 188,000 for this area. Projections recently prepared for the County's Transportation Study forecast 142,000 in the same area in 1990. Based on alternative assumptions about providing sewer service and on limiting or encouraging growth, the Santa Rosa Optimum Growth Study (1972) projected a low population of 140,000 and a high of 250,000 in 1990.

Since 1970, the City's population has been growing at a rapid average rate of 5.3 percent annually, compared with rates of 3.6 percent for the entire county and less than one percent for the nine-county Bay Region. Marin County's and the City of Petaluma's Growth limitation programs undoubtedly have been significant causes of Santa Rosa's relatively high growth rate. However, a number of local actions appear also to have stimulated population gains. The City's water supply system now serves a population of about 72,700. Within two years, the Russian River-Cotati Intertie will make available a supply sufficient for 200,000 users, assuming construction of the Warm Springs Dam. The present sewer system serves about 73,500 people in the City and the South Park Sanitation District, but construction of the Laguna Treatment Plant and connecting trunk lines will increase the service potential to 147,200.



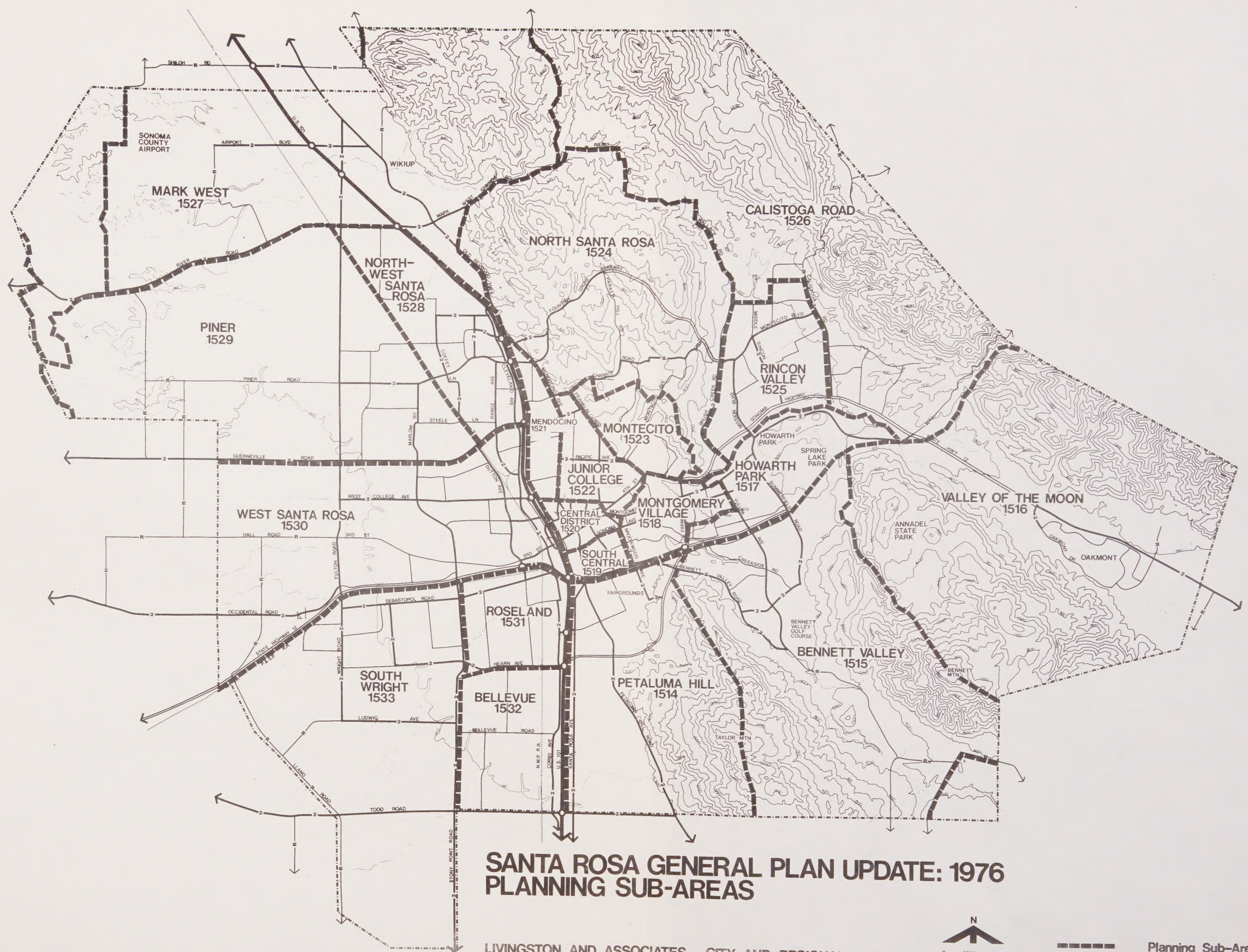
TABLE 2. SANTA ROSA PLANNING AREA POPULATION FORECASTS BY SUB-AREA, 2000

| Sub-Area             | Census Tract      | 1975 Population | 1990 Population |              | 2000 Population |              | 1975-2000 Percent Increase General Plan |
|----------------------|-------------------|-----------------|-----------------|--------------|-----------------|--------------|-----------------------------------------|
|                      |                   |                 | Sonoma County   | General Plan | Sonoma County   | General Plan |                                         |
| Petaluma Hill        | 1514              | 5,758           | 7,583           | 9,539        | 8,800           | 12,060       | 109.4                                   |
| Bennett Valley       | 1515 <sup>a</sup> | 8,080           | 12,418          | 10,792       | 15,310          | 12,600       | 55.9                                    |
| Valley of the Moon   | 1516 <sup>a</sup> | 2,559           | 3,592           | 4,078        | 4,280           | 5,090        | 98.9                                    |
| Howarth Park         | 1517              | 5,125           | 8,230           | 6,172        | 10,300          | 6,870        | 34.0                                    |
| Montgomery Village   | 1518              | 4,733           | 6,153           | 5,973        | 7,100           | 6,800        | 43.7                                    |
| South Central        | 1519              | 2,508           | 2,560           | 2,647        | 2,600           | 2,740        | 9.3                                     |
| Central District     | 1520              | 1,488           | 1,795           | 1,735        | 2,000           | 1,900        | 27.7                                    |
| Mendocino            | 1521              | 2,497           | 3,068           | 2,829        | 3,450           | 3,050        | 22.1                                    |
| Junior College       | 1522              | 6,090           | 6,936           | 6,498        | 7,500           | 6,770        | 11.2                                    |
| Montecito            | 1523              | 3,848           | 5,830           | 3,645        | 5,500           | 3,510        | -9.0                                    |
| North Santa Rosa     | 1524              | 3,345           | 6,198           | 6,096        | 8,100           | 7,930        | 137.1                                   |
| Rincon Valley        | 1525              | 8,650           | 10,060          | 11,224       | 11,000          | 12,940       | 49.6                                    |
| Calistoga Road       | 1526 <sup>a</sup> | 4,023           | 6,007           | 7,087        | 7,330           | 9,130        | 126.9                                   |
| Mark West            | 1527              | 4,875           | 6,450           | 5,532        | 7,500           | 5,970        | 22.5                                    |
| Northwest Santa Rosa | 1528              | 3,348           | 7,039           | 5,905        | 9,500           | 7,610        | 127.3                                   |
| Piner                | 1529              | 6,976           | 11,730          | 12,582       | 14,900          | 16,320       | 134.0                                   |
| West Santa Rosa      | 1530              | 13,211          | 19,084          | 21,490       | 23,000          | 27,010       | 104.4                                   |
| Roseland             | 1531              | 6,443           | 8,277           | 8,433        | 9,500           | 9,760        | 51.5                                    |
| Bellevue             | 1532 <sup>a</sup> | 1,939           | 2,971           | 2,366        | 3,660           | 2,650        | 36.7                                    |
| South Wright         | 1533 <sup>a</sup> | 4,128           | 5,815           | 7,279        | 6,940           | 9,380        | 127.2                                   |
| TOTAL PLANNING AREA  |                   | 99,624          | 141,756         | 141,902      | 168,270         | 170,090      | 70.7                                    |

(a) Represents only that part of census tract within the Santa Rosa Planning Area.

Source: Livingston and Associates; University Research Center (Santa Rosa)











Based primarily on the employment projections presented in the previous section, it is estimated that the planning area population will be about 170,000 in the year 2000. This estimate was derived by projecting the amount of population growth that would be generated by increased employment opportunities. The expected population gain from the approximately 9,500 housing units having received some kind of City approval was included in the projections. They were compared with population forecasts prepared for the County Transportation Study by the University Research Center. The total projected 2000 population is almost the same; the County study projected 168,270 while the Land Use Element studies project 170,090. Differences in the figures for individual sub-areas are explained by the method employed to allocate residential uses for the Land Use Element. After designating sites for commerce and industry, residential uses at various densities were allocated to the remaining lands, with in-fill of partially developed areas given priority and cultivated agricultural lands preserved wherever possible. The type of housing that could be accommodated on a given site was determined by a combination of factors including present neighborhood characteristics, terrain and location, cost considerations, and environmental constraints on development. The population forecasts by planning sub-areas are shown in Table 2. The sub-area boundaries are shown on the accompanying map.

The 2000 population is expected to be about 70 percent higher than the 1975 population, although employment is projected to increase by more than 100 percent, as indicated in Table 1. The lower rate of population gain is explained by the anticipated increase in the proportion of Santa Rosa residents who will be employed locally and the assumption that there will be a higher average number of employed persons per household.

Although the projected population gain may appear to be substantial, with some sub-areas more than doubling, the average annual growth rate during the 25-year period 1975-2000 would be only 2.83 percent, or slightly more than half the average rate in the past five years. Of course, this decline in the growth rate will not occur all at once. The present rate probably will fall gradually, reaching the average figure some time in the 1980's. It also is interesting to note that the estimated 1990 population is 141,900, which is close to the low population projection of the Optimum Growth Study. The present General Plan was based on a 1990 population projection that was 46,100 higher.

Table 3 presents the increase in the number of new housing units needed to accommodate the population growth anticipated in 2000. The projected gain in housing units is about 28,300 or 70 percent. The County's growth forecasts called for a much lower figure (almost 4,300 fewer units) because they assumed an increased number of persons per housing unit. This assumption runs counter to current trends in household size, which has remained stable or decreased in most of California's metropolitan areas since 1970. Although the declining birth rate of the first half of this decade is beginning to rise, it is not expected to reach the levels of the 1950's and 1960's. Consequently, the Land Use Element assumes the same average number of persons per Santa Rosa household as in 1975.



TABLE 3. SANTA ROSA PLANNING AREA HOUSING UNITS BY SUB-AREA, 2000

| Sub-Area             | Census Tract      | 1975: Housing Units | 1975: Persons/Unit | 2000: Persons/Unit |              | 2000: Housing Units |              | 1975-2000 Percent Increase |
|----------------------|-------------------|---------------------|--------------------|--------------------|--------------|---------------------|--------------|----------------------------|
|                      |                   |                     |                    | Sonoma County      | General Plan | Sonoma County       | General Plan | General Plan               |
| Petaluma Hill        | 1514              | 2,492               | 2.31               | 2.6                | 2.4          | 3,385               | 5,017        | 101.3                      |
| Bennett Valley       | 1515 <sup>a</sup> | 3,042               | 2.66               | 2.6                | 2.6          | 5,889               | 4,839        | 59.1                       |
| Valley of the Moon   | 1516 <sup>a</sup> | 1,441               | 1.78               | 2.6                | 1.8          | 1,646               | 2,823        | 96.3                       |
| Howarth Park         | 1517              | 2,039               | 2.51               | 2.6                | 2.6          | 3,962               | 2,643        | 29.6                       |
| Montgomery Village   | 1518              | 2,037               | 2.32               | 2.6                | 2.4          | 2,730               | 2,834        | 39.1                       |
| South Central        | 1519              | 2,297               | 1.93               | 2.6                | 2.0          | 1,004               | 2,370        | 3.2                        |
| Central District     | 1520              | 959                 | 1.55               | 2.6                | 1.8          | 769                 | 1,060        | 10.5                       |
| Mendocino            | 1521              | 1,074               | 2.32               | 2.6                | 2.2          | 1,328               | 1,226        | 14.2                       |
| Junior College       | 1522              | 3,078               | 1.98               | 2.6                | 2.2          | 2,885               | 3,078        | 0                          |
| Montecito            | 1523              | 1,518               | 2.53               | 2.6                | 2.2          | 2,115               | 1,595        | 5.1                        |
| North Santa Rosa     | 1524              | 1,132               | 2.95               | 2.6                | 2.6          | 3,116               | 2,915        | 157.6                      |
| Rincon Valley        | 1525              | 3,520               | 2.46               | 2.6                | 2.6          | 4,230               | 5,375        | 52.7                       |
| Calistoga Road       | 1526 <sup>a</sup> | 1,255               | 3.21               | 2.6                | 2.6          | 2,820               | 3,512        | 179.8                      |
| Mark West            | 1527              | 1,851               | 2.63               | 2.6                | 2.6          | 2,883               | 2,610        | 41.0                       |
| Northwest Santa Rosa | 1528              | 1,787               | 1.87               | 2.6                | 2.2          | 3,654               | 3,377        | 89.0                       |
| Piner                | 1529              | 2,310               | 3.02               | 2.6                | 2.6          | 5,732               | 5,506        | 138.4                      |
| West Santa Rosa      | 1530              | 5,374               | 2.46               | 2.6                | 2.6          | 8,845               | 11,230       | 109.0                      |
| Roseland             | 1531              | 2,391               | 2.69               | 2.6                | 2.6          | 3,654               | 3,755        | 57.0                       |
| Bellevue             | 1532 <sup>a</sup> | 661                 | 2.93               | 2.6                | 2.6          | 1,407               | 1,091        | 65.1                       |
| South Wright         | 1533 <sup>a</sup> | 1,413               | 2.92               | 2.6                | 2.6          | 2,668               | 3,343        | 136.6                      |
| TOTAL PLANNING AREA  |                   | 41,671              | 2.45               | 2.60               | 2.47         | 64,722              | 70,204       | 68.5                       |

(a) Represents only that part of census tract within the Santa Rosa Planning Area

Source: Livingston and Associates; University Research Center (Santa Rosa)

Santa Rosa Department of Community Development



## LAND USE PROPOSALS

### The Land Use Concept

The land use proposals are intended to match the open space policies and other environmental considerations of the General Plan with the urban land needs derived from the employment and population projections. A basic premise of the land use proposal is that the supply of land allocated for urban land uses during the next 20-25 years should not exceed the genuine need. The primary objective is to avoid a scattered pattern of development and the accompanying excessive costs of public utilities and services (water supply, sewage, refuse disposal, streets, police and fire protection, parks and recreation, school bussing); the premium cost for private utilities (electricity, gas, telephone); and unnecessary displacement of land suitable for agricultural production.

The land use proposals represent a moderate growth level, designed to encourage relatively stable land prices while attempting to discourage speculative bidding. This growth level is consistent with the proposed Sonoma County General Plan which accepts a reasonable share of the Bay Area's growth over the next 20-25 years (4.5% of total now, 6.5% in 2000).

The land use proposals recognize the Sonoma County General Plan and, for the most part, are consistent with the County proposal. The Land Use Element proposals are intended to represent the City's policy on urbanization and open space preservation to the year 2000. No urban development should be permitted beyond the boundaries of lands designated for urban uses. The resulting compaction of urban development not only will avoid scattered and costly development, but also will lessen energy usage by reducing the length of automobile trips. Lands subject to severe environmental constraints on development are proposed to be permanent open space. Based on the premise that agricultural lands generally are important to the area's economy as well as to the City's visual identity, and therefore should not be sacrificed to urbanization, most of the existing and potential prime croplands also are proposed to be permanently preserved. This is consistent with the proposed County Plan. Other types of open space lands, such as grazing lands, may be subject to urbanization after 2000, but the plan signifies that public utilities and services are not to be provided in these areas at least until then. Existing rural development in County areas are designated as such in the land use proposals. It should be noted that expansion of rural development areas is limited, in that extension of utilities is not proposed and, for the most part, future urban growth is limited to defined urban areas.

It is intended that the extent of urban land use delineated by the Land Use Plan should determine the City boundary as of the year 2000. This includes certain areas wherein the Land Use Element proposes limiting urbanization until after 2000 on lands currently



within sewer service areas, or in some cases where payments have been made to retire sewer district bonds. Generally this is proposed because urbanization of these locations would lead to scattered and costly development. However, prior to adopting this proposal as policy, particularly where payments have been made, a detailed financial impact analysis should be considered to determine overall costs and benefits to the taxpayers.

Within the area defined as the year 2000 City boundary, land use proposals call for enhancement and protection of existing neighborhoods. At the same time, in certain areas, densities have been increased to encourage in-filling of growth. East of the U.S. 101 freeway commercial expansion is limited to the vacant land adjacent to existing community centers. West of the freeway several new community centers are introduced north and south along Stony Point-Marlow Road. It is intended that these community center areas, coupled with adjacent medium and high-density housing, parks and other public facilities, will form focal points and sources of community identity for the various west side neighborhoods. The land use proposal also recommends that a substantial area within Fountain Grove be designated as a major planned industrial center aimed at increasing basic employment opportunities in Santa Rosa.

It is intended that the General Plan policies and Land Use Plan be amended to designate additional urban land only when it clearly can be demonstrated that the supply in a particular area is insufficient to permit a reasonable choice of sites for new development of appropriate uses, and that scattered development will not result. State Government Code Section 65361 contains provisions allowing for three General Plan Amendments per year. It is very important for the City to observe its existing policy which spells out specific times during the year when amendments to the General Plan will be considered. This policy permits reasonable and timely occasions for the General Plan to be reviewed and amended, while discouraging amendments and rezonings designed to allow specific development proposals on an ad hoc basis. The procedure also would ensure regular review of the General Plan and would afford the opportunity to affirm or amend its policies and proposals several times each year.

Following adoption of this General Plan as well as subsequent amendments, the Zoning Ordinance and Official Zoning Map need to be amended so as to ensure consistency with the General Plan. This would include both rezonings and necessary changes in the text of the Zoning Ordinance. Proper zoning classifications and a well-constructed Zoning Ordinance are critical tools for achieving sound and consistent implementation of the General Plan. Until recently, the General Plan was a mere policy statement which had no legal standing. However, in 1974, the State Planning Law was amended to require that the Zoning Ordinance be consistent with the General Plan. Now, although the Zoning Ordinance typically is more detailed, it must not conflict with the urbanization and open space preservation policies and objectives as set forth in the Land Use Element.



Santa Rosa currently utilizes most standard regulatory techniques to ensure implementation of adopted land use policies. When observed, these techniques generally have been successful in guiding development in accordance with the General Plan. The emergence of radically new and different implementation tools should not be expected when this General Plan Update is adopted. Rather, it is proposed that existing ordinances, policies and procedures, such as the Zoning Ordinance, Subdivision Development Standards, environmental review procedures, annexation policy, certificate of compliance policy, and the capital improvement program, be reviewed and amended only where necessary to ensure that they collectively, and in a coordinated manner, implement the land use policies of the General Plan.

## LAND USE OBJECTIVES AND POLICIES

The key objectives and policies which constitute the Land Use Element are summarized here.

### Growth and Economic Development

#### Objective 1

ENCOURAGE A RATE OF GROWTH WHICH DOES NOT EXCEED THE CITY'S ABILITY TO PROVIDE NECESSARY PUBLIC SERVICES OR THE ABILITY OF THE LOCAL ECONOMY TO SUPPORT SUCH GROWTH.

#### Policy 1

Encourage industrial and commercial uses which provide tax revenues to help support planned residential growth, including auxiliary public facilities and services.

#### Policy 2

Monitor various factors relating to the area's growth rate and provision of public services, including an inventory of land reserves and the costs and revenues associated with new development. Report regularly to the Planning Commission and City Council.

#### Policy 3

Consider the fiscal impact of new residential, commercial and industrial development proposals.

#### Objective 2

FOSTER A COMPACT RATHER THAN A SCATTERED DEVELOPMENT PATTERN IN ORDER TO DISCOURAGE URBAN SPRAWL; TO REDUCE THE EXTENT AND COST OF PUBLIC SERVICES; AND TO PRESERVE OPEN SPACE SURROUNDING THE CITY.

#### Policy 1

Designate the area shown in urban uses on the land use plan as the sphere of influence (year 2000 City Limits), and do not permit urban uses beyond this boundary.



#### Policy 2

Encourage in-fill development within this urban boundary. Identify areas appropriate for increased residential densities as a means to accomplish this.

#### Policy 3

Develop criteria for allowing increased residential densities within the urban area, the objective of which is to protect existing neighborhoods while providing sufficient incentives for new development on close-in land.

#### Policy 4

Consider amendments to the General Plan on a regular basis each year. Designate additional urban land only when it clearly is demonstrated that the supply in a particular area is insufficient to permit a reasonable choice of sites for new development of appropriate uses, and that scattered development will not occur. Change specific land use designations only after it has been determined that the change would not adversely affect eventual achievement of the objectives, policies and plans of the General Plan, and that it would serve a public purpose to make such a change.

#### Objective 3

ENCOURAGE NEW EMPLOYMENT IN "EXPORTING" BUSINESSES AND INDUSTRIES SO THAT SANTA ROSA RETAINS ITS DOMINANT ECONOMIC ROLE IN THE NORTH BAY SUB-REGION AND DOES NOT BECOME PREDOMINANTLY A COMMUTER SUBURB.

#### Policy 1

Establish a major industrial park in Fountain Grove with the specific intention of attracting large-scale employers.

#### Policy 2

Encourage the development of the Fountain Grove commercial and industrial area by establishing as a high priority the completion of the Fountain Grove Parkway to Rincon Valley.

#### Policy 3

Establish a City program to actively seek out selected employers who may wish to relocate to Fountain Grove.

#### Policy 4

Discourage industrial expansion adjacent to the Sonoma County Airport. Encourage the continued development of the Old Naval Air Station as an area appropriate for industrial development.



#### Objective 4

MAINTAIN THE CENTRAL BUSINESS DISTRICT AS THE MAJOR REGIONAL OFFICE AND FINANCIAL CENTER NORTH OF THE BAY AREA.

#### Policy 1

Continue major redevelopment of the downtown, including construction of the downtown center. Support existing office and commercial uses east of the downtown center, and strengthen ties with the Railroad Square area.

#### Policy 2

Encourage rehabilitation of the residential neighborhood north of Seventh Street and east of B Street. Encourage rehabilitation of residential structures while encouraging new downtown housing opportunities.

#### Policy 3

Encourage the conservation of historic structures along Second and Third Streets, east of E Street to Montgomery Drive, through conversion to office and professional uses which are compatible with adjoining residential uses.

### NEIGHBORHOOD IDENTITY AND HOUSING

#### Objective 1

STRENGTHEN AND ENHANCE THE PRESENT BLEND OF URBAN AND RURAL ELEMENTS THAT CHARACTERIZE SANTA ROSA'S DISTINCTIVE ENVIRONMENT.

#### Policy 1

Protect the rural quality of the outlying valleys, including Upper Bennett Valley, Upper Rincon Valley and the North Sonoma Valley. Do not expand urban land uses beyond those designated on the Land Use Plan.

#### Policy 2

Establish Fulton Road as the boundary between urban and rural land uses; preserve the rural character of the West Plains Area west of Fulton Road; and discourage scattered development east of Fulton Road.

#### Objective 2

PROVIDE FOR SAFE, PLEASANT AND DISTINCTIVE NEIGHBORHOODS.

### Policy 1

Maintain identifiable character of existing neighborhoods by discouraging the intrusion of incompatible housing types built either on vacant lots or redeveloped property.

### Policy 2

Promote conservation and rehabilitation of the existing housing stock wherever feasible.

### Policy 3

Discourage locating noise-sensitive land uses, such as housing, schools, libraries, churches, hospitals and nursing homes, along major trafficways if existing or projected noise levels would cause disruption. If existing noise levels already intrude into residential neighborhoods, make every effort to direct traffic to other routes, or encourage design solutions and physical improvements which buffer the noise.

### Policy 4

Encourage a variety of housing types to serve all economic segments of the community, including diversity of the predominant single-family detached units. Expand medium-density ownership and rental housing opportunities.

### Policy 5

Locate medium and high-density housing in clusters on suitable sites throughout the community, rather than concentrating it only along arterial streets, within the downtown area, or close to Coddington.

### Objective 3

PROVIDE FOR THE MAINTENANCE AND DEVELOPMENT OF CONVENIENT, WELL-DESIGNED NEIGHBORHOOD AND COMMUNITY COMMERCIAL AREAS.

### Policy 1

Maintain and improve existing community shopping centers. Allow expansion of community shopping facilities in areas east of U.S. 101 only on vacant lands part of or adjacent to existing centers.

### Policy 2

Encourage the development of additional community shopping areas west of U.S. 101. Locate these new centers along Stony Point-Marlow Road at intersections with major east-west streets. Encourage provision of retail, professional and other related businesses and services which are needed by the surrounding communities.



### Policy 3

Encourage the development of medium to high density housing adjacent to community shopping areas.

### Policy 4

Locate parks and other recreational facilities, including theaters and similar uses, adjacent to community shopping areas.

### Policy 5

Encourage neighborhood convenience shopping centers for the provision of convenience goods and services within or immediately adjacent to residential neighborhoods.

## ENVIRONMENTAL SAFETY

### Objective 1

REGULATE LAND USE IN AREAS OF SIGNIFICANT NATURAL HAZARD.

### Policy 1

Establish a special seismic hazard management zone along the Healdsburg-Rodgers Creek fault and do not permit development there until a detailed geologic evaluation of the surface rupture potential has been made and adequate building setbacks from the fault have been established.

### Policy 2

Minimize new development in high fire-hazard areas, especially isolated developments remote from fire-fighting resources.

### Policy 3

Prevent emergency response facilities from locating in potential flood areas as delineated in the Seismic Safety and Safety Element.

### Policy 4

Prevent development in areas of existing landslides and where inclines exhibit 25 percent or more slope.

### Policy 5

Minimize development in areas with moderately steep slopes, landslide potential, slope instability, and soils hazards.

### Policy 6

Prevent development in the Laguna de Santa Rosa to protect the public from flood hazards and to preserve air quality, as well as to protect wildlife habitat and agriculture.

## ENVIRONMENTAL AND SCENIC PROTECTION

### Objective 1

PRESERVE THE NATURAL SETTING OF THE CITY AND MAINTAIN ITS ORIENTATION TO THE HILLS.

### Policy 1

Preserve the visual amenities offered by the hillsides, and protect natural habitats.

### Policy 2

Retain the scale and beauty of the hillsides. Where development occurs, locate it on parcels large enough to accommodate natural features and processes.

### Policy 3

Minimize development on the lower hillsides, and where such development does occur, locate it in a manner sensitive to natural conditions and resources in terms of efficiency, visibility and compatibility with the natural environment.

### Policy 4

Preserve natural vegetation insofar as possible, especially on the hillsides and along streams.

### Objective 2

PRESERVE WATERWAYS IN THEIR NATURAL STATE INsofar AS POSSIBLE, AND UTILIZE THEM FOR SCENIC, RECREATIONAL AND EDUCATIONAL PURPOSES.

### Policy 1

Use natural waterways as open space corridors to provide a continuity of open spaces.

### Policy 2

Channelization of creeks with a typical concrete trapezoidal section should be avoided. Sections should be designed to allow for flood volumes in winter but present a visually narrower, more natural prospect in summer.

### Policy 3

Restore already modified channels insofar as is possible to ecologically balanced, natural-appearing waterways. Santa Rosa Creek, west of Santa Rosa Avenue, should be given highest priority.



### Objective 3

PRESERVE AND MAINTAIN AREAS BEST SUITED FOR AGRICULTURAL USE.

#### Policy 1

Maintain existing agricultural use and capability of all areas having prime soils, both because of importance in the production of food and for open space values.

#### Policy 2

Maintain a buffer of open land surrounding Santa Rosa to give a sense of identity and form to the community.

#### Policy 3

Encourage formation or retention of parcel sizes sufficient to provide for viable economic agricultural use.

### PROPOSED LAND USES

The Land Use Element classifies all lands in the planning area in one of the following categories.

RESIDENTIAL: HILLSIDE (5-ACRE MINIMUM SITES)  
RESIDENTIAL: VERY LOW DENSITY (0.2-1 UNITS PER GROSS ACRE)  
RESIDENTIAL: LOW DENSITY (2-5 UNITS PER GROSS ACRE)  
RESIDENTIAL: MEDIUM DENSITY (6-15 UNITS PER GROSS ACRE)  
RESIDENTIAL: HIGH DENSITY (16+ UNITS PER GROSS ACRE)  
OFFICE  
RETAIL BUSINESS AND SERVICE  
HIGHWAY/TOURIST COMMERCIAL  
LIGHT INDUSTRY/WAREHOUSING  
GENERAL INDUSTRY  
EDUCATION  
INSTITUTION/GOVERNMENT FACILITY  
PARK/RECREATIONAL FACILITY  
PROPOSED COMMUNITY PARK  
PROPOSED REGIONAL PARK  
PERMANENT OPEN SPACE/UNDEVELOPED  
ORCHARDS & VINEYARDS  
OTHER AGRICULTURE  
AGRICULTURE AND RESIDENTIAL  
OPEN LAND AND RESIDENTIAL

Residential: Hillside. This category represents those areas with slopes ranging from 15 to 25 percent. Because of the visual importance of the hillsides and the fact that much of the land which is this steep also is subject to environmental constraints (such as a high degree of slope instability in the event of an earthquake or in areas of potential slides), the minimum gross site area should be five acres for each residential unit. Clustered housing should be encouraged to allow the maximum amount of open space to be preserved



in contiguous areas. The Urban Design Element recommends that hillside housing be limited to tree-covered sites, with highly visible hillsides, such as Taylor Mountain and Annadel Heights, retained in open space. Roads and buildings on hillsides should fit the terrain as much as possible, and the extent of cut and fill slopes should be minimized. Natural vegetation and ground cover should be preserved. Location of roads and siting of structures should take account of the high fire hazard in these areas, and accordingly, developments which are scattered and inaccessible should be avoided.

Residential: Very Low, Low And Medium Density. These three categories include a range of densities because the size and shape of parcels, terrain and other physical constraints, and existing development patterns all affect the number of units per acre that should be located on any particular site. In addition, it may be desirable to vary the density within a category to create visual variety or a transitional pattern from city to countryside in the areas where this would be appropriate. Within the range prescribed for each residential category, any density may be suitable depending on the physical conditions of the site in question and on the character of surrounding development. Although individual projects may have densities at the high end of the range, overall densities are likely to be close to the median for each residential category because they include existing developments at less than the maximum prescribed density; because the acreage used by parks and community facilities must be taken into account; and because on many sites it is not physically possible to achieve the maximum. Within the residential land use categories, certain non-residential uses which would be appropriate in a residential setting, such as schools and churches, may be permitted. Likewise, neighborhood convenience shopping facilities may be permitted where appropriate.

Residential: Very Low Density. This category represents those areas on the fringe of the city where a transition is to occur from intense urban uses to agricultural and open space uses surrounding the city. Densities in this category vary from one to five acres per dwelling unit. This transition also occurs on hillside areas within the urban area; the Montecito area, Holland Heights and the shallower slopes of lower Bennett Valley are examples. In addition, this category is appropriate as a means of retaining rural residential densities within an urban area. The Benjamin-Speers area of Rincon Valley is a good example. However, lands designated in this category should be considered as lying within the City's sphere of influence and, therefore, eventually should be annexed.

In County areas this land use type is characterized by residential development which generally has precluded other primary uses of the land, i.e., agriculture and other open land functions have been replaced by construction of dwellings. These areas are of two basic types: Those which once were small chicken or swine ranches but no longer are economically viable for agriculture; and recent lot split areas in agricultural or other open lands. Examples of the former include the Roseland and Bellevue Districts. Examples of the latter are Country Club Estates, the Wallace Road and Reibli Road areas, and the Bennett Ridge Development. These areas should not be considered for annexation to the City.



Residential: Low Density. This category represents a density range of two to five units per acre, and is typical of the densities in existing single-family subdivisions throughout the city. This is the predominant residential density designation on the land use plan, largely a reflection of the desire to preserve existing housing stock and to continue the single-family residential lifestyle.

As previously stated, the present residential development pattern in Santa Rosa is primarily single-family detached housing, with higher densities near the center of the city and lower densities in outlying areas. Preservation of the character of existing neighborhoods and some increase in detached housing on suitable sites will be essential if Santa Rosa's present character is to be maintained. However, construction of this type of housing at the magnitude of previous years is unlikely in Santa Rosa or anywhere else in the nation. The cost of land, construction and financing have skyrocketed to the point that ownership of a detached home has become impossible for an increasingly large segment of the population. Those who already own homes may have benefited from recent inflationary trends, but families seeking a first home are finding it more and more difficult to afford the down payment and monthly charges. While the American dream may continue to be ownership of a single-family detached home, it is no longer a realistic or attainable goal for many. It will not be possible to meet Santa Rosa's future housing needs unless densities are increased sufficiently so that a significant share of new housing construction consists of townhouses, condominiums, and rental units. Allowing increased density enables developers to spread the cost of land and improvements over more housing units, thus decreasing the individual unit price. Furthermore, construction costs can be lowered if common walls and other cost-saving building features of attached units are employed. Clustered housing can provide amenities, such as generous open spaces, landscaping, swimming pools, and other recreational facilities not usually available in single-family subdivisions within a reasonable price range. Therefore, the Land Use Element proposes a new medium density residential category.

Residential: Medium Density. This category represents a density range of six to fifteen units per gross acre and is representative of densities found in planned unit developments such as Copperfield, Sierra Creek Village, and Vista Del Lago; townhouse and condominium developments such as Villa Los Alamos and Brush Creek Villas; mobile home parks; and garden apartments such as the Gaslight. The major reason for this category is to increase opportunities for home-ownership through increases in permitted densities.

In planned unit developments a variety of housing types can be provided in a harmonious mix which can include detached residences, patio homes, townhouses, and garden apartments. Common open spaces and recreational facilities should be required to compensate for the lack of large private yards. Within the density range prescribed for medium density residential land use, the City's zoning regulations can limit permitted densities to the low end of the range (say, six to ten units per acre). Densities as high as 15 units per acre for planned unit developments are possible, provided that certain criteria are observed, such as minimum site acreage, a prescribed



percentage of the land devoted to landscaped or recreational open space, some provision of moderately-priced units, and superior site planning, architectural, and landscape design. The use permit and design review processes can be used to ensure that these objectives are met.

East of U.S. 101 the Land Use Element proposed new medium density housing immediately west of the municipal golf course; east of the St. Francis Center in Roncon Valley; two locations in the Fountain Grove area; and a significant area north of Kawana Springs Road, adjacent to the proposed Farmers Lane extension. West of U.S. 101 several new medium density housing areas are proposed, in conjunction with new community centers. These are centrally located along the Stony Point-Marlow Road "spine", and in addition to satisfying pressing housing needs, locating medium density development in the proposed locations will assist in creating new development with a sense of form and place in the west plains area.

Residential: High Density. This category represents residential development in excess of 16 units per acre, designed primarily as multiple-family rental and condominium housing units. There are many examples of two and three-story apartment buildings in Santa Rosa in the density range of 16 to 40 units per acre. In addition, this category also applies to high-rise apartments like Silvercrest and Bethlehem Towers in the central district.

Additional areas of high density residential development are located downtown and adjacent to the community centers on the west side of town. These areas are designated to help satisfy future rental demand, and to assist in bolstering identification of downtown and outlying neighborhood centers.

Because of earthquake-related problems identified in the Seismic and Safety Element, high-rise buildings may become economically unfeasible, particularly if design criteria prescribed in the Seismic and Safety Element are adopted. Therefore, future high density residential development in most cases will be limited to wood frame construction not exceeding three stories in height.

Table 4 presents the proposed distribution of new hillside, very low, low, medium and high density housing units to be accommodated in each planning sub-area.

Office. This category designates areas suitable for professional, administrative and commercial offices. Most of the land currently designated for office uses continues in this category, including the downtown area and the land south of Memorial Hospital between Montgomery and Sonoma Avenues. New areas for office development are appropriate in or adjacent to existing or proposed community shopping centers, and in transition areas between commercial and residential land uses.



Residential: Low Density. This category represents a density range of two to five units per acre, and is typical of the densities in existing single-family subdivisions throughout the city. This is the predominant residential density designation on the land use plan, largely a reflection of the desire to preserve existing housing stock and to continue the single-family residential lifestyle.

As previously stated, the present residential development pattern in Santa Rosa is primarily single-family detached housing, with higher densities near the center of the city and lower densities in outlying areas. Preservation of the character of existing neighborhoods and some increase in detached housing on suitable sites will be essential if Santa Rosa's present character is to be maintained. However, construction of this type of housing at the magnitude of previous years is unlikely in Santa Rosa or anywhere else in the nation. The cost of land, construction and financing have skyrocketed to the point that ownership of a detached home has become impossible for an increasingly large segment of the population. Those who already own homes may have benefited from recent inflationary trends, but families seeking a first home are finding it more and more difficult to afford the down payment and monthly charges. While the American dream may continue to be ownership of a single-family detached home, it is no longer a realistic or attainable goal for many. It will not be possible to meet Santa Rosa's future housing needs unless densities are increased sufficiently so that a significant share of new housing construction consists of townhouses, condominiums, and rental units. Allowing increased density enables developers to spread the cost of land and improvements over more housing units, thus decreasing the individual unit price. Furthermore, construction costs can be lowered if common walls and other cost-saving building features of attached units are employed. Clustered housing can provide amenities, such as generous open spaces, landscaping, swimming pools, and other recreational facilities not usually available in single-family subdivisions within a reasonable price range. Therefore, the Land Use Element proposes a new medium density residential category.

Residential: Medium Density. This category represents a density range of six to fifteen units per gross acre and is representative of densities found in planned unit developments such as Copperfield, Sierra Creek Village, and Vista Del Lago; townhouse and condominium developments such as Villa Los Alamos and Brush Creek Villas; mobile home parks; and garden apartments such as the Gaslight. The major reason for this category is to increase opportunities for homeownership through increases in permitted densities.

In planned unit developments a variety of housing types can be provided in a harmonious mix which can include detached residences, patio homes, townhouses, and garden apartments. Common open spaces and recreational facilities should be required to compensate for the lack of large private yards. Within the density range prescribed for medium density residential land use, the City's zoning regulations can limit permitted densities to the low end of the range (say, six to ten units per acre). Densities as high as 15 units per acre for planned unit developments are possible, provided that certain criteria are observed, such as minimum site acreage, a prescribed



percentage of the land devoted to landscaped or recreational open space, some provision of moderately-priced units, and superior site planning, architectural, and landscape design. The use permit and design review processes can be used to ensure that these objectives are met.

East of U.S. 101 the Land Use Element proposed new medium density housing immediately west of the municipal golf course; east of the St. Francis Center in Roncon Valley; two locations in the Fountain Grove area; and a significant area north of Kawana Springs Road, adjacent to the proposed Farmers Lane extension. West of U.S. 101 several new medium density housing areas are proposed, in conjunction with new community centers. These are centrally located along the Stony Point-Marlow Road "spine", and in addition to satisfying pressing housing needs, locating medium density development in the proposed locations will assist in creating new development with a sense of form and place in the west plains area.

Residential: High Density. This category represents residential development in excess of 16 units per acre, designed primarily as multiple-family rental and condominium housing units. There are many examples of two and three-story apartment buildings in Santa Rosa in the density range of 16 to 40 units per acre. In addition, this category also applies to high-rise apartments like Silvercrest and Bethlehem Towers in the central district.

Additional areas of high density residential development are located downtown and adjacent to the community centers on the west side of town. These areas are designated to help satisfy future rental demand, and to assist in bolstering identification of downtown and outlying neighborhood centers.

Because of earthquake-related problems identified in the Seismic and Safety Element, high-rise buildings may become economically unfeasible, particularly if design criteria prescribed in the Seismic and Safety Element are adopted. Therefore, future high density residential development in most cases will be limited to wood frame construction not exceeding three stories in height.

Table 4 presents the proposed distribution of new hillside, very low, low, medium and high density housing units to be accommodated in each planning sub-area.

Office. This category designates areas suitable for professional, administrative and commercial offices. Most of the land currently designated for office uses continues in this category, including the downtown area and the land south of Memorial Hospital between Montgomery and Sonoma Avenues. New areas for office development are appropriate in or adjacent to existing or proposed community shopping centers, and in transition areas between commercial and residential land uses.



TABLE 4. ALLOCATION OF NEW HOUSING UNITS BY SUB-AREA, 2000

| Sub-Area             | Census Tract | 1975 Housing Units | Additional Units                 |                                            |                                      |                                         |                                      | Total Additional | Total Units |
|----------------------|--------------|--------------------|----------------------------------|--------------------------------------------|--------------------------------------|-----------------------------------------|--------------------------------------|------------------|-------------|
|                      |              |                    | Hillside<br>(0.133) <sup>a</sup> | Very Low<br>Density<br>(0.65) <sup>b</sup> | Low<br>Density<br>(3.5) <sup>c</sup> | Medium<br>Density<br>(8.0) <sup>d</sup> | High<br>Density<br>(20) <sup>e</sup> |                  |             |
| Petaluma Hill        | 1514         | 2,492              | 0                                | 180                                        | 650                                  | 1,695                                   | 0                                    | 2,525            | 5,017       |
| Bennett Valley       | 1515f        | 3,042              | 214                              | 215                                        | 465                                  | 903                                     | 0                                    | 1,797            | 4,839       |
| Valley of the Moon   | 1516f        | 1,441              | 44                               | 254                                        | 624                                  | 465                                     | 0                                    | 1,387            | 2,828       |
| Howarth Park         | 1517         | 2,039              | 0                                | 116                                        | 448                                  | 40                                      | 0                                    | 604              | 2,643       |
| Montgomery Village   | 1518         | 2,037              | 0                                | 0                                          | 33                                   | 764                                     | 0                                    | 797              | 2,834       |
| South Central        | 1519         | 2,297              | 0                                | 0                                          | 0                                    | 73                                      | 0                                    | 73               | 2,370       |
| Central District     | 1520         | 959                | 0                                | 0                                          | 0                                    | 0                                       | 101 <sup>g</sup>                     | 1019             | 1,060       |
| Mendocino            | 1521         | 1,074              | 0                                | 0                                          | 0                                    | 152                                     | 0                                    | 152              | 1,226       |
| Junior College       | 1522         | 3,078              | 0                                | 0                                          | 0                                    | 0                                       | 0                                    | 0                | 3,078       |
| Montecito            | 1523         | 1,518              | 3                                | 29                                         | 45                                   | 0                                       | 0                                    | 77               | 1,595       |
| North Santa Rosa     | 1524         | 1,132              | 100                              | 441                                        | 482                                  | 760                                     | 0                                    | 1,783            | 2,915       |
| Rincon Valley        | 1525         | 3,520              | 0                                | 32                                         | 1,092                                | 731                                     | 0                                    | 1,855            | 5,375       |
| Calistoga Road       | 1526f        | 1,255              | 94                               | 414                                        | 1,325                                | 424                                     | 0                                    | 2,257            | 3,512       |
| Mark West            | 1527         | 1,851              | 0                                | 190                                        | 329                                  | 240                                     | 0                                    | 759              | 2,610       |
| Northwest Santa Rosa | 1528         | 1,787              | 0                                | 20                                         | 610                                  | 800                                     | 160                                  | 1,590            | 3,377       |
| Piner                | 1529         | 2,310              | 0                                | 260                                        | 1,416                                | 1,040                                   | 480                                  | 3,196            | 5,506       |
| West Santa Rosa      | 1530         | 5,374              | 0                                | 260                                        | 2,024                                | 2,272                                   | 1,300                                | 5,856            | 11,230      |
| Roseland             | 1531         | 2,391              | 0                                | 0                                          | 140                                  | 1,224                                   | 0                                    | 1,364            | 3,755       |
| Bellevue             | 1532f        | 661                | 0                                | 325                                        | 105                                  | 0                                       | 0                                    | 430              | 1,091       |
| South Wright         | 1533f        | 1,413              | 0                                | 260                                        | 650                                  | 520                                     | 500                                  | 1,930            | 3,343       |
| TOTAL PLANNING AREA  |              | 41,671             | 455                              | 2,996                                      | 10,438                               | 12,103                                  | 2,541                                | 28,533           | 70,204      |

- (a) Hillside has a 5-acre minimum site. Number of additional units was computed by measuring the proposed area and multiplying the number of acres by 0.133, the assumed gross community density.
- (b) Very low density has a range of one unit per 1-5 acres, or a density ranging from 0.2-1 per gross acre. Number of additional units was computed by measuring the proposed area and multiplying the number of acres by 0.65, the assumed gross community density.
- (c) Low density has a range of 1-5 units per gross acre. Number of additional units was computed by measuring the proposed area and multiplying the number of acres by 3.5, the assumed gross community density.
- (d) Medium density has a range of 6-15 units per gross acre. Number of additional units was computed by measuring the proposed area and multiplying the number of acres by 8.0, the assumed gross community density.
- (e) High density has a range of 16 or more units per gross acre. Number of additional units was computed by measuring the proposed area and multiplying the number of acres by 20, the assumed gross community density.
- (f) Represents only that part of census tract within the Santa Rosa Planning Area.
- (g) Represents the net increase in units at high density after redevelopment of the area designated for this use.

Source: Livingston and Associates  
Santa Rosa Department of Community Development



Retail Business and Service. This category includes all types of stores and personal service establishments, but not automotive sales or service, or "heavy" commercial uses of a semi-industrial nature. Depending on the size of the land area, the amount of floor area, the variety of retail goods offered, and whether it is intended to serve the entire urban area, a large sub-area, or a neighborhood, the specific retail business and service center is considered a Regional Center, a Community Center, or a Neighborhood Convenience Center.

The Regional Center provides for general merchandise, apparel, furniture and home furnishings in full display and variety. It is built around at least one full line department store and its consumer drawing power stems from its capacity to offer complete shopping facilities. In size, regional centers range in area from approximately 300,000 square feet to 1,000,000 square feet. In site area, 30 acres usually is the minimum. Regional centers generally are designed to serve a trade area of 150,000 to 400,000 or more people.

Two regional centers currently exist in the Santa Rosa Planning Area: Downtown Santa Rosa and Coddington. No additional regional centers are included for the year 2000.

The Community Center provides for the sale of convenience goods (foods, drugs and sundries) and personal services (laundry and dry cleaning, barbering, shoe repairing) for the day-to-day living needs of the surrounding neighborhood. It usually is built around the supermarket as the anchor tenant; however, hardware or drug stores often perform the same function, or are combined with the supermarket. Restaurants, theaters and other similar uses also are appropriate in community centers. In size, the community center may range from approximately 30,000 square feet to as high as 150,000 square feet. For its site area, the community center needs from four to ten acres. It normally serves a minimum trade area of about 2,000 to 2,500 households within six to ten minutes driving time. However, according to the Urban Land Institute the number of people needed to support a shopping center of any type is not a fixed measure. Factors of income level, amount of disposable income, dilution by competition, plus changing methods of merchandising and store size all enter calculations. Therefore, prior to approval of a community center, sufficient documentation of need should be provided.

Examples of existing community centers include the St. Francis Shopping Center, the Rincon Valley Center, the Bennett Valley Center, Mayette Village, Redwood Plaza at the intersection of Mendocino Avenue and Steele Lane, and the Alpha Beta Shopping Area on the north side of Sebastopol Road.

East of U.S. 101 no new community centers will be needed. Future demand should be accommodated by expansion of the existing community centers on under-utilized parcels or adjacent vacant lands. West of the U.S. 101 several new community centers will be needed.



These should be centrally located to minimize use of the automobile; they should provide full services to minimize cross-town traffic; and, they should act as neighborhood focal points for numerous west plains communities. The Land Use Plan designates several sites which would be appropriate as community centers. As residential development continues demand will indicate when these new community centers will be needed.

The Neighborhood Convenience Center provides goods and services to local residents without disrupting the residential character of the area. They are necessarily small in size, usually from 1.5 to four acres, and do not provide the multitude of more specialized goods and services found in community centers. Often times, the neighborhood convenience center will consist of a single building like the "Mom and Pop" stores of yesterday, or its contemporary, the 7-11. Examples of existing neighborhood convenience centers include the Brookwood Terrace Market on Sonoma Avenue, the V & V Market on Lomitas, the South "E" Market, the Town and Country Shopping Area, and the various 7-11's and Circle "K" Markets throughout the community.

Neighborhood convenience centers are considered desirable in appropriate locations of any residential district, particularly where persons live who do not have cars and must walk to shopping areas. In areas where new residential development is planned neighborhood convenience centers should be encouraged within walking distances to complement the more widely spaced community centers.

Highway Tourist Commercial. This category includes not only hotels, motels, restaurants, service stations and other establishments catering to highway travelers, but also automotive sales and services, mobile home sales, outdoor sales and other "heavy" commercial uses that would have an adverse impact on retail centers.

Light Industry. This category includes industrial parks, industrial plants without nuisance features, warehouses, and other similar uses.

General Industry. This category includes all other types of industrial uses.

Education. This category includes all existing public and private schools from the elementary through the collegiate level. The general locations of new schools that may be needed as a result of population growth will be added to the Land Use Plan when the Community Facilities Element is prepared.

Institution/Government Facility. This category is a catch-all for all major public and quasi-public land uses not included in the categories already defined. Existing government buildings, libraries, hospitals, transportation facilities (including the County Airport, the Santa Rosa Air Center, and all airport owned lands), cemeteries, sewage treatment plants and the like are shown. Telephone exchanges, electrical substations, water tanks and other similar uses are included within this category but are too small to be shown on the Land Use Plan.



Park/Recreation Facility. This category is intended to designate existing park and recreation facilities and proposed community, city-wide and regional size park facilities. Neighborhood park proposals are made on more detailed maps found in the Park and Recreation Element.

Permanent Open Space/Undeveloped. This category is characterized by a low level of human utilization. Included are forest, grasslands, mountainous areas, and other open lands not utilized predominantly for agriculture, except for agricultural activities such as grazing cattle or sheep. Other land uses include forestry, mining, marshes, and park lands.

This category also includes all those lands that should never be developed because of severe environmental constraints, including lands with slopes greater than 25 percent and known landslide areas. Within these steep hillside areas, there are some lands with less severe environmental constraints which potentially could be developable with proper engineering controls, but these also are shown as permanent open space/undeveloped because it would be necessary to traverse more hazardous slopes to reach them; because of access and fire hazard problems; and because small scattered developments are excessively costly to service.

Residential development is usually related to the particular land use of the parcel. The county-wide average for this category is one dwelling unit per 450 acres. Much greater densities (say ten acres per dwelling unit) exist in certain areas. Most of the population inhabiting this category lives in these latter areas, while large areas of land remain essentially uninhabited.

Agriculture/Orchards and Vineyards. This category is characterized by intensive agricultural development. Included are orchards, vineyards, associated structures, yards and residences. Residential development is related to the agricultural economy, and includes single-family residences, mobile homes and farm labor housing. Residential density is usually low, averaging about one dwelling per 50 acres county-wide. More intensive densities occur in specific areas, although parcel sizes of less than 20 acres usually indicate residential development not related to agriculture. This land use type is predominantly located in the valleys and low slopes of the northern part of the county and in the Valley of the Moon.

Other Agriculture. This category presently is characterized by extensive agricultural activities including dairies and related uses. Included are lands used for truck crops, silage, forage and dairy grazing, and other animal husbandry activities. More extensive grazing lands for beef cattle and sheep are not included. Residential development is related to the agricultural economy, including single-family residences, mobile homes, and farm labor housing. Residential density is very low, averaging about one dwelling unit per 100 acres county-wide and is tied very closely to the economic operation of the agricultural activity.



Agriculture and Residential. This category is characterized by agriculture combined with some residential development unrelated to agriculture. These areas are either in transition from agricultural use to more intense residential use (usually through minor subdivision), or historically in small parcels and stable. This type of land use typically occurs within intensive agricultural areas such as orchards or vineyards. Overall, residential density varies from 10 to 20 acres per dwelling unit. However, these areas usually are typified by a combination of larger agricultural parcels with smaller residential parcels. Agricultural and residential land uses are predominantly located in the Sebastopol apple belt, the northern Santa Rosa Plain (between Santa Rosa and Healdsburg) and in the Valley of the Moon.

Open Land and Residential. This category is characterized by a combination of open, non-agricultural land with some residential development. These areas usually are lot-split parcels along roads surrounded by undeveloped areas. They tend to be stable (that is, not undergoing further subdivision) because of physical constraints such as steep slopes, septic limitations, or poor water supply. The Mark West Springs area north of Santa Rosa is an exception to this generality. Residential density varies from five to ten acres per dwelling unit. Typical examples of this type of land use are located in the Sonoma Mountains, and along Mark West Springs Road.



## MAJOR LAND USE PROPOSALS BY SUB-AREAS

### Petaluma Hill

The Circulation Element calls for extension of Farmers Lane as an expressway facility to provide a bypass route to connect U.S. 101 and Route 12. Construction of this new road will open certain parts of the Petaluma Hill area for development. For example, new medium-density residential use is proposed north of the expressway and south of Colgan Avenue. The entire area is within the present sewer service boundary and is not subject to severe slope stability problems. Because the expressway is not projected to be built until 1985, new residential development should not be encouraged prior to its completion in order to assure adequate area for right-of-way acquisition and to avoid problems arising from road construction in a residential area.

The Land Use Plan recognizes the existing Retail Business and Service and Highway/Tourist Commercial uses along Santa Rosa Avenue. However, there is an area south of Hearn Avenue, designated both Retail Business and Service and Light Industry, where efforts should be made to concentrate "heavy" commercial land uses requiring outdoor storage, large truck deliveries and warehousing. On the east side of Santa Rosa Avenue, residential uses are limited to the boundary of the existing sewer service area. The remainder of the area is designated Agriculture and Residential to help retain Santa Rosa's identity by achieving separation from the City of Rohnert Park.

Specific policies to guide growth and development in this sub-area include the following:

1. Limit urban land uses to the area bounded by the existing sewer service district; encourage in-fill of vacant parcels.
2. Encourage increased home-ownership opportunities by limiting densities in the medium-density area to the range of six to ten units per acre.
3. Discourage residential development in the northern portion until completion of the Farmers Lane extension.
4. Pursue annexation of the area which is designated for urban uses.

### Bennett Valley

A special study of Bennett Valley resulted in a General Plan Amendment in June, 1974. The Land Use Element adheres to the adopted land use designations except in the following instances:

1. The low-density residential classification is changed to medium-density for the Vista del Lago planned community west of Bennett Valley Golf Course. Construction of 486 housing units was approved by the City in 1971 for this 53-acre area.



2. The Bennett Valley Knolls condominium project near Bennett Valley Road north of Tachevah Drive has received tentative map approval, and is shown in medium-density residential use instead of low-density.
3. All hillside lands with slopes greater than 25 percent, some of which also occur in areas of known landslides, potential landslides, or high slope instability, are shown as Undeveloped/Permanent Open Space in the area south of Annadel State Park. Parts of this area are within the 1956 sewer service boundary; the present General Plan would permit development at very low densities.
4. Portions of Bennett Valley were identified in the Seismic Safety and Safety Elements as being potential landslide areas. Geologic investigations should be undertaken in these areas before development approval is granted by the City.
5. Except for some hillside residential, no additional development is shown in the portion of Bennett Valley south of the crossing of Bennett Valley Road and Matanzas Creek, even though portions are within the 1956 sewer service area boundary and are indicated for low-density development by the present plan. Development of this rural portion of the valley would create sprawl and would affect adversely the visual quality of the area. Furthermore, the lands shown in the Agriculture and Residential category will not be needed to meet urban land demands at least through 2000.
6. The southern one-third to one-half of the area south of Warrack Hospital designated Medical Center on the Bennett Valley GPA has been changed to low-density residential.

In addition to these proposals, the banks of Matanzas Creek should be retained as open space, and recreation trails should be developed wherever possible to link the central portion of the city with the countryside. Creekside trails also would provide access to the proposed city-wide park located in the area near the reservoir.

Specific policies to guide growth and development in this sub-area include the following:

1. Limit urban uses to the area bounded by the 1956 sewer service district except that area south of the crossing of Bennett Valley Road and Matanzas Creek as designated on the Land Use Plan.
2. Amend the Bennett Valley General Plan Amendment (BVGPA) text and land use diagram to reflect changes made as a result of the General Plan Update Program. Establish the BVGPA as a specific area plan and include this document within the General Plan.



## Valley of the Moon

Valley of the Moon is a large area generally south of Los Alamos Road and includes Annadel State Park, Oakmont and the large expanse of open land northeast of State Highway 12. The major land use proposals include completion of the Oakmont planned community south of Route 12 to include a total of about 2,800 housing units, consistent with the presently-approved development plans.

The land between Oakmont and the approximate current edge of the City at Los Alamos Road should be continued in very low-density residential uses. The objective here is to retain parcels large enough to provide visual and physical transition from the countryside to the city, while at the same time reserving the area in parcels of sufficiently large size for possible future urban expansion.

As for the remainder of the sub-area south of Route 12, the Oakmont Shopping Center should be expanded only to the extent necessary to serve the projected local population, and the steep hillside areas east of the State Park should be retained as permanent open space due to environmental constraints associated with steep slopes.

No new development is proposed north of Route 12 at least through 2000. Although the City signed a contract with the owner of approximately 250 acres to extend sewer trunk lines to the subject properties, the land areas north of Route 12 will not be needed for urbanization during the planning period, and therefore the availability of sewer service alone should not be used to foster scattered development.

Creeksides in the area should be retained in open space, and trails should be developed where feasible to provide access to the hills north of Route 12 and to Annadel State Park.

Specific policies to guide growth and development in this sub-area include the following:

1. Contain urban expansion to the area south of Highway 12. Discourage urban development on the north side of Highway 12 until it can be shown that the land is necessary for urban expansion, and that a public purpose of the community will be served by such expansion.

## Howarth Park

Very low density housing is projected for the vacant land in the Medica Road area south of Howarth Park. This density classification is appropriate because of the geologic problems in the area. About 120 units could be accommodated at this density range. A new community park is proposed along Santa Rosa Creek from Farmers Lane to the Brush Creek flood control channel. This new park should incorporate the creek and natural vegetation to create an urban open space. Efforts should be concentrated on conservation of the existing housing units and commercial areas.



### Montgomery Village

The major land use proposal in this sub-area is to in-fill scattered, vacant parcels at residential densities and do so in a manner compatible with existing development in order to retain the neighborhood character. In most cases, this will be in the low-density range. An exception is the proposed medium-density residential use on the site adjacent to St. Eugene's Church. If clustered housing were developed at the west end of the present walnut orchard, it would help to preserve a valuable open area; creekside trails could be perpetuated; it could facilitate preservation of the Vallejo-Carrillo adobe; and it would maintain and actually strengthen neighborhood identification for the St. Eugene's area of Montgomery Village. Existing housing stock in Montgomery Village should be conserved, and conversion of older housing to commercial use, particularly along Sonoma Avenue, should be discouraged.

### South Central

The Burbank Gardens Neighborhood Study has been incorporated into the General Plan; therefore, no major land use changes are called for in this built-up area. Conservation of the existing sound housing stock and some new multi-family residential construction to provide moderate-income housing close to downtown are recommended. The Burbank Gardens Neighborhood Study, as a specific area plan, is incorporated into the General Plan.

### Central District

The central district (downtown) will continue to be the office, banking and commercial hub of the Santa Rosa region. Major land uses will be a mixture of retail business and service and professional offices. Santa Rosa Center is shown in the redevelopment area. The recently completed Downtown Design Plan makes specific recommendations for integrating existing retail and office uses of the downtown area with the Santa Rosa Center and with Railroad Square. It also is proposed to increase high-density residential uses on both sides of the Santa Rosa Creek between "E" Street and Brookwood Avenue, particularly for single-person and elderly households who wish to reside in or close to downtown.

### Mendocino and Junior College

Most of the land in these two adjacent sub-areas already is developed, and their present character should be retained. In the Mendocino sub-area, expansion of the County Administrative Center is anticipated, along with some medium-density residential development to the north. Both sides of Mendocino Avenue, north of the County Administration Center are shown in office uses, while the vacant property north of the proposed Bicentennial Drive is designated Highway/Tourist Commercial and would be appropriate for uses such as a restaurant-motel complex. However, this site is highly visible and every effort must be made to insure the highest-quality project design.



A General Plan amendment was adopted in June, 1975 for the Junior College area, and this plan is retained in the Land Use Element. The primary goal is conservation of the existing housing stock, including protection of historical and architecturally significant structures. Because of its proximity to downtown, the present mix of single-family and multi-family residential development is desirable in order to provide a choice of housing types at a central location. The Junior College Neighborhood Plan Area is included on the Land Use Plan as a specific area plan.

#### Montecito and North Santa Rosa

Continuation of the present family-oriented life style is the major proposal for the Montecito area; only about 75 new housing units are projected as in-fill or vacant lots.

The North Santa Rosa sub-area comprises a large geographic area and includes the Fountain Grove planned community. Through preparation of the Seismic/Safety Element, environmental data not previously available identify environmental constraints such as slopes exceeding 25%, known landslides, areas of potential high slope instability, and areas of severe seismically-induced ground shaking. Since these environmental constraints occur primarily on slopes of 25% or greater, these steep slope areas have been designated as Undeveloped/Permanent Open Space. As in other hillside areas of the community, slopes of 15% to 25% were designated as Residential: Hillside, while the more shallow sloped residential areas were designated as Residential:Very Low Density.

The Land Use Plan designates an additional 365 acres as light industrial development, similar to Hewlett Packard. There are 115 acres on the south side of Fountain Grove Parkway west of Hewlett Packard, and about 250 acres north of the expressway around the lake. This is in response to several knowledgeable observers, including the Chamber of Commerce, General Plan Update Citizen Committee and the County Development Board, who have stated that Santa Rosa lacks attractive industrial sites for needed growth in export manufacturing and employment opportunities. This area should be designated as an industrial/business park, and the City should initiate a task force program to bring large scale employers to Fountain Grove. If this were to occur, the City's tax base would be improved substantially, and needed jobs would be created which would both improve the service economy and help keep Santa Rosa from becoming even more of a bedroom community than it already is.

About 1,200 residential units are projected for Fountain Grove by 2000. Most of these units are located in medium-density areas consistent with the existing planned community (PC) plan. Other uses such as offices and tourist commercial also are located in the same locations as the PC Plan. In addition, the retail business and service area remains in the central area. Its function should be to provide services to the people and businesses which locate in the industrial/business park.



The creek banks in the Fountain Grove area should be retained in open space, with trails providing access to the recreational facilities at the reservoir and to the proposed community park. A city-wide park should be developed in the vicinity of the Pine Creek Reservoir in the southern part of the sub-area.

The balance of North Santa Rosa should be retained as open space, including preservation of existing croplands and expansion of agriculture where soils are suitable, and hillside residential development in areas with slopes between 15 and 25 percent.

Specific policies to guide growth and development in this sub-area include the following:

1. Redefine uses in the Fountain Grove area to place major emphasis on development of a superior quality industrial/business park.
2. Initiate a task force program to bring large scale employers to Fountain Grove.
3. Support industrial/business development in Fountain Grove by establishing as a high priority the completion of the Fountain Grove Parkway.
4. Contain urban expansion to the area within the existing City Limits or to the areas designated for urban land uses. Discourage any urban development on lands designated as Undeveloped/Permanent Open Space.

### Rincon Valley

The policies set forth in the Open Space Conservation Element for protection of the interior valleys are applied in Rincon Valley, where the major land use proposals call for continuation of very low-density and low-density residential uses; development of recreational trails along Ducker and Austin Creeks in order to connect schools, parks and other open spaces where feasible; and limitation of new commercial development to vacant areas part of or adjacent to existing commercial centers.

### Calistoga Road

All of the hillside areas over 25 percent slope in this sub-area should be designated as Undeveloped/Permanent Open Space, with less steep, lower slopes designated as Residential:Hillside and the land south of Brush Creek Middle Force Reservoir as Residential:Very Low Density. The extent of urban uses should be drawn just above Harville Road. Lands to the north of this urban boundary should continue in open land and residential uses, consistent with the proposed County Plan. Lands to the south of this boundary should form a very low-density transition from the intense urban uses to the open space proposed to the north. Designation of this area as Residential:Very Low Density and Open Land and Residential also cuts back on the number of automobile trips in and out of Rincon Valley each day. This is the major reason why lower densities are planned



for areas within the 1956 sewer service area. If densities are increased over those planned, substantial change will be needed to the existing circulation system.

The balance of the sub-area, from Calistoga Road to Los Alamos Road is indicated for continuation of the existing low-density residential pattern, with very low-density development closest to Los Alamos Road creating a transitional pattern between the open space to the east in the Valley of the Moon and the more densely developed areas to the west along Route 12.

Specific policies to guide growth and development include the following:

1. Establish the urban boundary consistent with the 1956 sewer service area, except the area north of Harville Road, as designated on the Land Use Plan.
2. Maintain the existing Mark West-Riebli-Wallace Road areas as rural communities by designating them as Open Land and Residential and Very Low Density on the Land Use Plan. Encourage the County to contain expansion of these areas to the limits of the existing development as depicted on the Land Use Plan. Do not extend urban services to these areas.
3. Encourage the County to maintain the Mark West Creek watershed by limiting parcel sizes to ensure adequacy of septic system operation.

#### Mark West

Most of this sub-area, particularly the land west of U.S. 101, is proposed to be retained in agricultural use. Of particular importance are the prime agricultural lands along Mark West Creek and the land south of the County Airport which should be kept in agricultural use both for agricultural production and as a clear area for airport noise. To the east of U.S. 101 are the unincorporated communities of Larkfield and Wikiup. Land use designations for these areas support existing uses and approved plans; they also are consistent with the proposed Sonoma County General Plan. However, both areas currently have sewer problems and no new development should occur until sewer service is provided. The City of Santa Rosa should continue to investigate providing sewer service to these areas. A basic condition of the City's provision of utilities should be control of future land use and development standards. Lands farther east are designated either as Undeveloped/Permanent Open Space or Residential:Very Low Density, representative of the steep slope areas or existing rural residential development.

Specific policies to guide growth and development include the following:

1. Encourage the County to maintain agricultural uses in the area along Mark West Creek and south of the County Airport as designated on the Land Use Plan.



2. Encourage the County to maintain the existing Larkfield/Wikiup areas as unincorporated communities. Discourage substantial expansion beyond the limits of the existing defined communities.
3. Work with the County to investigate providing sewer service to these areas.
4. Work with the County to preserve community separation between Larkfield/Wikiup and Santa Rosa.

#### Northwest Santa Rosa and Piner

These two sub-areas include all of the future City area west of U.S. 101 and north of Guerneville Highway. The northern urban boundary includes all the area within the existing Coffey-Hopper sewer district west to Fulton Road. The western urban boundary is at Fulton Road.

In the northwest Santa Rosa sub-area major land uses include continuation of the Piner Industrial Area west to the Flood Control Channel and the Northwestern Pacific Railroad (NWPR) tracks. South of this industrial area the proposed plan is consistent with the Coddington Area General Plan Amendment area. North and west of this industrial area low-density residential uses predominate; however, a community center is proposed at the intersection of Coffey Lane and Hopper Road, and very low-density residential uses are proposed as a transition from the intense urban uses to the surrounding open space.

The Piner sub-area presently is a mixture of very low and low-density housing, but the subdivisions are located randomly and there are large vacant parcels scattered throughout. The Land Use Element recommends in-fill of these areas with low density development; however, Fulton Road should remain the western boundary of urbanization even though the existing sewer service boundary extends a short distance west of the road. Fulton Road is a logical termination point for urbanization, at least through 2000, because almost all of the land to the west is presently vacant or in agricultural use and will not be needed to accommodate urban development before 2000. If the area were designated for urbanization now, then scattered development, which is costly to the taxpayers, is bound to result. Other proposals in this sub-area include two community centers with their attendant medium- and high-density residential, commercial and recreational uses.

Specific policies to guide growth and development include the following:

1. Establish the urban boundary consistent with the Coffey-Hopper Sewer Service District and at Fulton Road.
2. Establish community centers as designated along the Stoney Point-Marlow Road spine. Encourage these centers to become focal points for the surrounding west side communities. Provide the necessary public services and facilities to complement private development.



3. Encourage increased home ownership opportunities by limiting densities in medium-density areas to the six to ten unit per acre range.
4. Promote annexation of the existing County areas within the urban boundary.
5. Work with the County to insure continued agricultural and open space uses west of Fulton Road.
6. Encourage the County to contain expansion of existing rural communities, including the Willowside Road area, to the limits of existing development as depicted on the Land Use Plan. Avoid extension of urban services to these areas.

#### West Santa Rosa

This large sub-area extends west from U.S. 101 to beyond Fulton Road, and is bounded by Guerneville Road on the north and Highway 12 on the south. As in the case of the Piner sub-area much of West Santa Rosa currently is characterized by scattered, unrelated subdivisions. The recommendations of the Land Use Element and Plan attempt to alter this trend by establishing several community centers along the Stony Point-Marlow corridor. In the remaining areas of the west side, low-density residential uses predominate with no development located west of Fulton Road. In the Coddington area some expansion of retail and office is recommended, while industrial development is designated in and around the intersection of West College and the NWPR tracks and west of Stony Point Road and adjacent to the sewer treatment plant.

Specific policies to guide growth and development include the following:

1. Establish the boundary of Urban uses at Fulton Road.
2. Establish community centers as designed along the Stony Point-Marlow Road spine. Encourage these centers to become focal points for the surrounding west side communities. Provide the necessary public services and facilities to complement private development.
3. Encourage increased home ownership opportunities by limiting densities in medium-density areas to the six to ten unit per acre range.
4. Promote annexation of the existing County areas within the urban boundary.
5. Work with the County to insure continued agricultural and open space uses west of Fulton Road.
6. Encourage the County to contain expansion of existing rural communities, including the Country Club Estates area, to the limits of the existing development as depicted on the Land Use Plan. Avoid extension of urban services to these areas.



## Roseland, Bellevue and South Wright

In the Roseland sub-area, industrial and commercial uses should continue along Sebastopol Road, Highway 12 and the railroad tracks. While the predominant residential land use should be low-density residential, medium-density areas are appropriate where the existing ownership pattern would make it difficult to assemble sufficiently large sites for low-density development. To further define future land uses in this mixed use area, the City should support and participate directly in a joint City-County area plan for the Roseland sub-area. The boundary of urban uses should be Hearn Avenue.

In the Bellevue sub-area, new development is projected for the low-density residential area between Corby Avenue, the railroad and the northward expansion of the Industry West Development. No change is shown for the Industry West Development. The remaining area between Hearn Avenue on the north and Stony Point Road on the west should be continued in very low-density residential land use except for "Auto Row" where continued Highway/Tourist Commercial development is encouraged.

The major land use recommendation in the South Wright sub-area is the continuation of the Santa Rosa Air Center both as a general aviation airport and as an industrial area. This designation may change, however, with completion of a feasibility study to evaluate the future of this airport facility. The existing residential development west of Wright Road should form the western boundary of urbanization, while Ludwig Avenue and Stony Point Road should form the southern and eastern boundaries. A community center is located at the intersection of Stony Point Road and Hearn Avenue.

Specific policies to guide growth and development include the following:

1. Establish the boundary of urban uses at Hearn Avenue, Stony Point Road, Ludwig Avenue and Wright Road. Consider expansion of the urban area to the existing low density residential area west of Wright Road. Include urban uses east of the Northwestern Pacific Railroad (NWPRR) within the urban boundary.
2. Establish a community center as designated at the intersection of Hearn Avenue and Stony Point Road. Encourage this center as in the case of other west side community centers. to become the focal point for the surrounding area. Provide necessary public services and facilities to complement private development.
3. Encourage increased home ownership opportunities by limiting densities in medium-density areas to the six to ten unit per acre range.
4. Promote annexation of the existing County areas within the urban boundary.
5. Participate with the County in a joint City-County area plan for the Roseland sub-area.
6. Continue the Santa Rosa Air Center both as an industrial and general aviation area. Re-evaluate this position following completion of the airport facility feasibility study.







- 43-







## INTRODUCTION

The State Planning Law requires that each city and county prepare a circulation element delineating the general location and extent of existing and proposed major thoroughfares, transportation routes, terminals and facilities, all correlated with the land use plan. State guidelines prescribe that the element should identify and analyze circulation needs and issues, produce a statement of goals, objectives, and policies, describe and show by diagram or map the proposed circulation system, define standards and criteria for the location, design, operation and levels of service for each circulation mode, and establish a time schedule and priorities for implementation.

## BASIS FOR THE CIRCULATION/TRANSPORTATION ELEMENT

The Circulation/Transportation Element proposals are based on goals, policies, proposals and projections derived primarily from six sources:

1. Traffic and Transportation goals as developed by the General Plan Update Citizen Committee;
2. Public opinion as defined by the Sample Survey of Important Planning Issues and Choices;
3. The Sonoma County Transportation Study;
4. Metropolitan Transportation Commission Policy;
5. Santa Rosa's Short Range Transit Program; and
6. Santa Rosa's Travel Desires and Needs.

These six sources provide significant information and perspective for construction of this Element. Because of their significance, each is represented below in detail.

1. The General Plan Update Citizen Committee developed the following Traffic and Transportation Goals:
  - a. Within the growth limit line, develop a roadway plan for the Santa Rosa area which includes a major peripheral roadway and is consistent with the adopted land use plan;
  - b. Retain all rights-of-way currently in public ownership;
  - c. Establish plan lines for the roads and the roadways plan at the earliest possible dates and protect those plan lines with necessary right-of-way acquisitions;
  - d. Achieve a "C" service level or better on arterial streets;
  - e. Land use controls, rather than street or highway widenings, should be used to achieve desired service levels;
  - f. Establish mechanisms to obtain citizen opinion on priorities for use of roadway funds;
  - g. Improve the appearance and traffic flow on all new major streets by the use of median strips and the exclusion of unnecessary on-street parking;



- h. Oppose construction of a major northern California regional airport in the planning area;
- i. Continue to provide bikeways on all major streets in new public and private developments; pursue all other efforts so that off-street bikeways can become a facility for recreation as well as part of the circulation system;
- j. Reduce peak hour traffic by using innovative techniques where economically feasible such as bus transit, car pooling and staggered work hours;
- k. Design of new residential developments should minimize through neighborhood traffic; and
- l. Establish a major east-west highway by completing Highway 12, using overhead construction between the 101 interchange and the far side of Farmers Lane. The route should continue as a ground level landscaped parkway to Summerfield Road. The only intersection between Farmers Lane and Summerfield Road should be Yulupa Avenue.

## 2. The Sample Survey of Important Planning Issues and Choices:

In January, 1976, a sample survey asked questions of Santa Rosans that probed attitudes toward various planning policy issues and options. Several of the questions concerned transportation and circulation. In fact, when asked what they liked least about Santa Rosa, respondents ranked increased traffic congestion first. Consequently, it is not surprising that 66 percent favored diverting traffic to new roads constructed in outlying areas, even though this might open new areas to development. Half of the respondents wanted public transit facilities improved even if subsidies would be required. The same percentage opposed routing traffic around residential neighborhoods if increased congestion on arterials would result. Extension of Route 12 as a freeway through Spring Lake Park was viewed as an important issue, particularly by those opposing it, but half of the respondents favored the extension while 46 percent were opposed. Public opinion was equally divided concerning whether Route 12 should be extended only as far as Summerfield Road. Attitudes toward accommodating the projected increase in north-south traffic favored widening the U.S. 101 freeway rather than constructing new streets. Also, slightly more than half of the respondents favored improving Golden Gate Transit Service, even if this would attract a greater number of commuters to live in Santa Rosa. Sonoma County Airport expansion was opposed by 58 percent of the respondents. The old Naval Air Station, now being used for general aviation, is favored for future industrial development.

## 3. The Sonoma County Transportation Study:

The present General Plan Update Program has been fortunate in being able to borrow data from the 1975 Sonoma County Transportation Study. While the County's study covered a much larger area and



was designed to produce a level of detail applicable to county-wide needs, Santa Rosa's Transportation issues and needs were covered in a satisfactory manner.

Consequently, the study data were subjected to additional analysis and were utilized as the major data source for the City's Circulation/Transportation Element.

The County study was based on 1973 land use, population, travel, and trafficways data. This information was compared with 1975 data for Santa Rosa and supplemented or adjusted where necessary. The County prepared a series of alternative year 2000 growth and transportation concepts for individual planning areas. The resulting land use, population and employment proposals for the Santa Rosa planning area were compared with the Santa Rosa General Plan Update projections to determine the need for adjusting travel desire figures. Because the County study had projected desires between sub-neighborhood zones within Santa Rosa and, with the help of a computer, converted these to estimates for most arterial streets and highways in the planning area, it was possible to adjust the County's figures to match Santa Rosa's projections. The share of total travel on each route to be carried by transit was a goal rather than a projection, and the capacity of each street to carry automobile traffic was set assuming that this goal would be attained.

The Sonoma County Transportation Plan is based on a population projection of 430,000 in the year 2000. A companion land use plan assumes a "community centered growth concept" which will reduce average travel distances. Efficient use of the highway system would be attained by a substantial diversion to transit in critical corridors. In addition, incentive policies are expected to increase vehicle occupancy by car pooling and to spread peak period travel demands by staggering work hours. The County's transit policy would foster concentrated activity centers by providing fixed route service in intensive development corridors and demand-responsive service in low density areas. Low mobility segments of the population are to receive first priority in providing transit service. The County's plan projects that a major diversion to transit will be necessary in Santa Rosa. Transit-intensive corridors, offering an attractive alternative to the automobile, are proposed on Dutton Avenue extended, Mendocino/Santa Rosa Avenues, and Montgomery Avenue/Third Street. Transit users are expected to constitute 10 to 20 percent of peak hour and 5 to 10 percent of off-peak travellers in these corridors.

Neither of Santa Rosa's highways (Route 101 and Route 12) has sufficient capacity to carry the traffic loads forecast for the year 2000. Because major widening or extension of these routes as freeways was judged to be environmentally unacceptable, the traffic was planned to be dispersed onto several expanded and new arterial streets which would serve as bypasses. A major new route is proposed from Calistoga Road across the northern part of the city, utilizing the Fountain Grove Expressway, crossing U.S. 101 at a reconstructed Mendocino Avenue interchange, turning south on Coffey Lane and Dutton Avenue, and ending at Hearn Avenue. A second new route is



a southerly extension of Farmers Lane to Route 101 at Hearn Avenue. The 101 freeway is proposed to be expanded to six lanes with metered ramps to control traffic. Highway 12 is to be constructed as an at-grade boulevard from South "E" Street to Farmers Lane and then directly linked to Hoen Avenue. Todd Road is to be extended east to Petaluma Hill Road and west to Highway 116, south of Sebastopol. An improved Russell Avenue is proposed to interchange with Route 101. Construction of additional traffic lanes is proposed on portions of Calistoga Road, Summerfield Road, Montgomery Drive, Petaluma Hill Road, Santa Rosa Avenue south of Hearn, Hearn Avenue, Stony Point Road, College Avenue west of the railroad, Occidental Road, Guerneville Road west of Fulton, and Piner Road.

Key proposals of the County Plan are summarized as follows:

- a. Upgrade Highway 101 to six lanes with special devices such as ramp metering and merge lanes to maintain reasonable levels of service;
- b. Develop a continuous north-south distributor west of the freeway along the Coffey Lane-Dutton Road alignment. This would connect with Highway 101 at a reconstructed Mendocino Avenue interchange;
- c. Develop a major arterial north of the City running from the reconstructed Mendocino Avenue interchange to Badger Road (with access to Mission Boulevard) and from there by a further extension to Calistoga Road (similar in concept to the Fountain Grove Expressway);
- d. Extend Farmers Lane south and then west to link up with Hearn Avenue (with a reconstructed interchange at Highway 101);
- e. Construct Highway 12 as an at-grade boulevard between South "E" Street and Farmers Lane linking directly with Hoen Avenue; and
- f. Develop transit intensive corridors along Mendocino Avenue, the Dutton Road-Coffey Lane distributor, and along the east-west corridor of Sebastopol Road - Montgomery Avenue.

#### 4. Metropolitan Transportation Commission Policy:

While Santa Rosa is the hub of Sonoma County and generates or attracts a major share of county-wide travel, it also is a part of the San Francisco Bay Area for which transportation planning is done by the Metropolitan Transportation Commission (MTC). MTC's role is to maintain a plan which provides safe, efficient, environmentally responsive facilities and services at reasonable cost for the movement of people and goods, through a coordinated regional transportation system composed of mass public transit, highways, airports, seaports, and railroads. MTC's interest is regional, and it acts as the instrument of state and federal policies by allocating



state and federal funds to local and regional projects. MTC's major objective in the next several years is to reduce the use of private automobiles in the region. This objective is to be attained primarily by giving a priority in allocating funds both to new transit facilities and to improving the level and quality of existing transit service. New highway improvements are to be limited to those which will help to reduce air pollution, relieve serious safety hazards, or complete existing highway links which are used for public transit or are deemed essential for goods movement or for national defense.

Current MTC proposals which would affect Santa Rosa are the following:

- a. To have 300 Golden Gate Transit buses operating between San Francisco and Santa Rosa by 1990;
- b. To expand Santa Rosa's local bus system by the addition of routes and new equipment;
- c. To coordinate local transit service with Golden Gate Transit; and
- d. To widen Route 101 to six lanes from Novato to Santa Rosa and build a new interchange south of Mendocino Avenue. First priority for additional lane capacity would be given to exclusive bus and/or car pool lanes.

5. Santa Rosa's Short Range Transit Program:

The City's 1975 Short Range Transit Program lists ten objectives for providing transit service in Santa Rosa. These objectives are keyed to the goals of providing a responsive, efficient, and economical transit service. Responsive transit service will afford access to all intensively developed residential areas and major activity centers, and access to facilities providing services for people dependent on transit such as children, the elderly, and the handicapped. Efficient transit service will facilitate connections between elements of the transportation system, avoid adverse impacts on residential neighborhoods, minimize duplication of service and increase transportation capacity in corridors where major streets or highways are expected to become overloaded. Economical transit service will enhance environmental quality, conserve energy and be cost-effective.

6. Santa Rosa's Travel Desires and Needs:

The need to travel is created by the distance people live from where they work, shop, go to school, or engage in leisure time activities. At present, 63 percent of Santa Rosa's jobs are located east of the U.S. 101 freeway in the central business district, in the Junior College area, and in the County government center. Two-thirds of the resident population of the planning area also live on the east side of the freeway and must cross it to reach the regional shopping center, banks, and offices at Coddington. Intensive traffic congestion on Steele Lane and Cleveland Avenue results.



Another heavy burden on the trafficways system is generated by concentrations of outlying development, such as those in Rincon Valley, in Bennett Valley, and at Oakmont which involve excessive amounts of travel and are difficult to provide with transit service. More compact development, "in-filling" presently partially developed areas would make lighter demands on the trafficways network and would make provision of transit service more feasible.

The number of automobiles owned per household also is an important factor in motor vehicle trip generation. According to the 1970 Census, almost half of Santa Rosa's households had two or more cars, with the highest rate of ownership occurring in Rincon Valley and Bennett Valley. The western plains and the southern part of the city had a rate of ownership equal to the city-wide average, despite the lowest median incomes occurring in these areas, probably indicating the need for better transit service. City-wide, 12 percent of all households had no automobile. Eighteen percent did not own cars in the six centrally located census tracts east of the freeway, but less than five percent of those living farther out on the east side had no cars.

Some residential neighborhoods, such as those east and north of downtown, have found themselves caught between major activity centers and outlying new residential developments, without sufficient arterial street capacity to carry the resulting traffic. Proposals to widen residential streets have been countered by proposals to use existing parallel routes or to build by-passes. In some instances, such as Sonoma Avenue, the automobile has won and residential streets have been widened. In other cases, such as in the Junior College Neighborhood, most through traffic is forced to by-pass the area.

While people cannot be required to live close to the place where they work or shop, the City can direct future growth into a pattern that will minimize travel demands by not extending streets, utilities, or other public services into outlying areas. In addition to reducing the cost of street construction and maintenance and facilitating the use of transit, such a policy would minimize traffic congestion on existing routes and reduce air polluting emissions from motor vehicles.

The pattern of urban development proposed by the Land Use Element of the City's General Plan indicates the probable locations and amounts of future travel. Because the proposed Land Use Element envisions a compact growth pattern, the need for major street construction to serve new outlying residential areas will be minimized. By continuing to locate major shopping and employment centers along the U.S. 101 freeway and increasing the proportion of housing units west of the freeway so that housing locations are more equally distributed in areas tributary to these concentrated travel destinations, existing streets can be utilized more efficiently. Compact growth will allow more transit usage and will make it possible to provide a better balance of transportation services to the residents of Santa Rosa.



## CIRCULATION/TRANSPORTATION SYSTEM PROPOSALS

### The Circulation/Transportation Concept

The Circulation/Transportation proposals are directed toward design and achievement of a balanced transportation system which provides for safe, convenient and reliable travel within Santa Rosa and to other parts of the region. The Circulation/Transportation proposals complement those of the Land Use Element; they are cognizant of the major fiscal commitments required to implement transportation improvements; and they minimize disruption of the environment.

The Circulation/Transportation element is based on findings and conclusions of the 1975 Sonoma County Transportation Study, modified and refined in order to respond to the city's circulation and transportation issues and to correlate with the other General Plan elements. In the case of issues which relate to county-wide circulation, the two plans make consistent recommendations. However, the proposed internal circulation system of the City is not, in all cases, consistent with that contemplated in the County Plan.

Existing circulation system deficiencies would be corrected by implementation of the proposed plan, and new or upgraded facilities are proposed to handle new and increased travel needs. North/south through traffic will remain on the freeway, while local traffic will be accommodated on parallel major streets. New routes are intended to ease east-west traffic congestion without major widening of existing residential streets. An overall "C" level of service is the goal of the trafficways plan.

While the private automobile is projected to remain as the predominant mode of transportation in Santa Rosa, the plan proposes an increased reliance on transit alternatives, particularly during peak travel periods. This will encourage establishing "transit intensive corridors" to reduce peak hour traffic, reduce dependence on the automobile and reduce demand for all-day parking spaces. It also will serve residents who are unable to use or cannot afford to operate and maintain an automobile. In any event, increased reliance on transit alternatives will address the problems of congestion, noise, fuel availability and air pollution.

## CIRCULATION/TRANSPORTATION SYSTEM OBJECTIVES AND POLICIES

The key objectives and policies which are reflected in the Circulation/Transportation Element are summarized here.

### Regional Travel

#### Objective 1

MEET THE NEEDS OF ALL RESIDENTS FOR SAFE, CONVENIENT AND RELIABLE TRANSPORTATION FACILITIES AND SERVICES BETWEEN SANTA ROSA AND OTHER PARTS OF THE REGION.



### Policy 1

Encourage the adoption and implementation of the proposed Sonoma County Transportation Plan. Work with the County to ensure construction of Highway 116 west to Napa County, thereby lessening reliance on the scenic Highway 12 route (Valley of the Moon).

### Policy 2

Monitor the number of people commuting on Golden Gate Transit to the central Bay Area. Discourage substantial increases from the existing 8 to 10 percent out-of-county work commuters. Work with MTC to evaluate and, if necessary, amend the proposal to have 300 buses operating between San Francisco and Santa Rosa by 1990.

### Policy 3

Coordinate local transit service with Golden Gate Transit and other line-haul carriers.

### Policy 4

Oppose construction of a major northern California regional airport in the planning area. Support the continued general aviation use of Sonoma County Airport and the Santa Rosa Air Center.

## TRAFFICWAYS

### Objective 1

USE THE TRANSPORTATION SYSTEM OF WHICH TRAFFICWAYS IS THE MAJOR COMPONENT, AS A MEANS FOR GUIDING DEVELOPMENT AND IMPROVING THE ENVIRONMENT.

### Policy 1

Use transportation improvements in the city as catalysts for desirable development and coordinate new facilities with private and public development.

### Policy 2

Design and locate facilities to preserve the national landscape and to protect views.

### Policy 3

Improve the appearance and traffic flow of all new major streets by the use of median strips and the exclusion of unnecessary on-street parking. Improve the appearance of existing major streets through the construction of planted median strips. Priorities for this construction should be established.

### Policy 4

Conduct an origin and destination survey at the earliest possible date.



## Objective 2

ESTABLISH A TRAFFICWAYS SYSTEM IN WHICH THE FUNCTION AND DESIGN OF EACH STREET ARE CONSISTENT WITH THE CHARACTER AND USE OF ADJACENT LAND.

### Policy 1

Encourage roadway designs in which local and collector streets carry volumes consistent with residential character, while major streets, expressways and freeway carry higher volumes consistent with their designed capacities.

### Policy 2

Design street capacities for levels of traffic which will not cause a detrimental impact on adjacent land uses.

### Policy 3

Land use controls, rather than street or highway widenings, should be used to determine the function of a street.

## Objective 3

PROVIDE FOR CONVENIENT AND SAFE MOVEMENT WITHIN THE CITY DURING NORMAL TRAVEL PERIODS.

### Policy 1

Promote increased traffic safety with special attention to hazards which could cause personal injury.

### Policy 2

Eliminate unnecessary cross-traffic and improve traffic flow along major streets and expressways.

### Policy 3

Identify intersections which are already congested or which are approaching capacity. Improve these intersections as a highest priority.

## Objective 4

PROVIDE SAFE AND PLEASANT SPACE FOR PEDESTRIANS.

### Policy 1

Ensure safe and convenient pedestrian crossings.

### Policy 2

Make necessary provisions for the handicapped.



## Objective 5

ALLOW FOR THE SAFE USE OF THE BICYCLE AS A MEANS OF TRANSPORTATION AND RECREATION.

### Policy 1

Establish bicycle routes between major recreation areas, residential areas and major work centers.

### Policy 2

Encourage bicycle routes which are separate from automobile and pedestrian traffic.

### Policy 3

Integrate separate rights-of-way for bicycle routes into the design of new major streets and expressways.

### Policy 4

Provide for bicycle security in major parks, public places such as libraries, commercial areas and work centers.

## NEIGHBORHOOD PRESERVATION

### Objective 1

PROTECT THE CORE OF RESIDENTIAL NEIGHBORHOODS FROM THROUGH TRAFFIC.

### Policy 1

Divert through automobile and truck traffic from residential neighborhoods onto major streets and expressways, and limit major streets to non-residential areas wherever possible.

### Policy 2

Encourage larger setbacks, noise buffering and innovative site planning for residential units adjacent to major streets. Give special attention to noise in conducting design review of units fronting on major streets.

### Policy 3

Consider increasing residential density on land adjacent to major streets as a bonus for larger setbacks, noise buffering and other similar responses.

### Policy 4

Encourage efficient neighborhood circulation patterns which allow for direct access of service, emergency and transit vehicles.



## Policy 5

Limit through trafficways in residential neighborhoods to local and collector streets; control adjacent land uses to discourage generation of traffic volumes.

## MAJOR BUSINESS AND INDUSTRY

### Objective 1

PROVIDE REQUIRED TRANSPORTATION AND PARKING FACILITIES WHICH WILL ENABLE THE DOWNTOWN AREA TO FUNCTION EFFICIENTLY AS THE PRIMARY BANKING AND COMMERCIAL CENTER FOR SONOMA COUNTY.

### Policy 1

Determine if a cost-effective and functional method can be devised to permit Fifth Street to continue under Santa Rosa Center in the same fashion as the proposal for Third Street. This is the preferred alternative.

### Policy 2

If, because of the Santa Rosa Center Disposition Agreement and related decisions, Fifth Street must remain closed, then it is imperative to implement an alternative access to, and interchange with, Highway 101 at the north end of downtown. The realignment of Seventh Street is the preferred alternative.

### Policy 3

Convert Fourth Street, between "B" and "E" Streets, to a semi-mall with two meandering 11-foot traffic lanes with intermittent parking bays.

### Policy 4

Realign "D" Street, south of Fifth Street, to achieve a better through connection with Humboldt Street.

### Policy 5

Implement street operation recommendations as proposed in the Downtown Design Plan.

### Policy 6

Implement parking, pedestrian movement and transit recommendations of the Downtown Design Plan.

### Objective 2

MAINTAIN THE CODDINGTOWN AREA AS A MAJOR RETAIL AND BUSINESS AREA; PROVIDE NECESSARY IMPROVEMENTS TO THE TRANSPORTATION FACILITIES SERVING THIS AREA.



### Policy 1

Complete Range Avenue to provide a north/south corridor to serve the Coddington area.

### Policy 2

Continue to make street and intersection improvements which reduce congestion.

### Objective 3

ENCOURAGE INDUSTRIAL AND COMMERCIAL DEVELOPMENT BY PROVIDING NECESSARY TRANSPORTATION FACILITIES.

### Policy 1

Complete the Fountain Grove Parkway east to Rincon Valley, to provide a critically-needed link between east and west parts of Santa Rosa along the northern edge, and to provide improved access to the proposed business/industrial park.

## TRANSIT

### Objective 1

GIVE HIGH PRIORITY TO IMPROVING TRANSIT SERVICES THROUGHOUT THE CITY, PROVIDING CONVENIENT AND RELIABLE SYSTEMS AS ALTERNATIVES TO AUTO-MOBILE USE.

### Policy 1

Continue to seek federal, state and other funding sources which provide major funding for transit equipment, maintenance and operation. Support legislation which will provide additional funding.

### Policy 2

Divert 1% to 2% of the total Planning Area trips to transit, and 10% of total trips to transit during peak hours along major corridors.

### Policy 3

Provide coordination of Santa Rosa Transit (SRT) with schedules and transfer points of other transit systems such as Golden Gate and Greyhound buses.

### Policy 4

Constantly review routes, scheduling and vehicle operations of SRT with the aim of increasing transit patronage and improving the level of service.



## Policy 5

Encourage development of paratransit programs, such as employee car pooling, with major employers. Evaluate feasibility of joint development and sponsorship of paratransit or jitney service connecting downtown professional and governmental offices with the County Administration Center.

## Policy 6

Provide special transit services for major events, such as the County Fair.

## IMPLEMENTATION

### Objective 1

ESTABLISH IMPROVEMENT PRIORITIES WITHIN THE LIMITS OF AVAILABLE SOURCES OF FUNDS. SCHEDULE NECESSARY IMPROVEMENTS BASED ON ESTABLISHED PRIORITIES.

### Policy 1

Prepare a five-year capital improvement program and a one-year capital budget.

### Policy 2

Review established priorities and make necessary annual amendments to the program.

## CIRCULATION SYSTEM CHARACTERISTICS

### Trafficways

The trafficways system consists of seven basic classes of roads. Three of these are incorporated in the current General Plan. Four additional categories, namely, expressway, two-lane major street, industrial street and rural road, are recommended for inclusion. The seven road types are as follows:

Freeways are routes designed to carry large traffic volumes over long distances. Access is controlled, grade crossings are separated and median strips are used to separate lanes moving in opposite directions. Route 101 is a four-lane freeway with a base right-of-way width of 146 feet. Its capacity for average daily traffic (ADT) is 55,000 vehicles. While none currently exists in the planning area, a six-lane freeway has a minimum right-of-way of 170 feet and a capacity of 80,000 ADT.

Expressways are roads designed to carry heavy traffic volumes at moderate speeds. Access is controlled, crossings are at grade, and there are medians between lanes in opposite directions.



The basic right-of-way can vary from 86 to 130 feet. Access to abutting properties usually is provided by frontage roads. Intersections generally are signalized and parking is not permitted. Capacity will vary depending on distances between intersections, ranging from 35,000 to 50,000 ADT. Expressways should be heavily landscaped to give them a parkway-type character. Route 12 is a four-lane expressway west of Dutton Avenue and from Farmers Lane to Melita Road.

Major streets are arterials designed to carry heavy traffic volumes at lower speeds than expressways. Some major streets have medians to control cross traffic. Separate turning lanes usually are provided, and signals control major intersections. Curb cuts for driveways should be located away from intersections and limited to essential access points. Where curb parking is allowed, it may be banned during peak travel times to gain additional capacity. Where there are no parking lanes, turn-outs for transit stops and disabled vehicles should be provided. Four-lane major streets have a right-of-way of either 86 or 102 feet, depending on whether there are parking lanes, and have a capacity of 22,500 ADT. Landscaping should be designed to emphasize the importance of these arterial routes. Examples of major streets are Sonoma Avenue from "E" Street to Hahman, Yulupa Avenue south of Spring Creek, and Mendocino Avenue from College Avenue to Russell. Two-lane major streets have a 60 to 86 foot right-of-way and have an 11,000 ADT capacity. Examples are Montgomery Drive, Middle Rincon Road, and North Street.

Collector streets are designed to channel traffic from local streets into the major street system and to handle short trips within neighborhoods. Collectors normally have two lanes in a right-of-way of 52, 56 or 60 feet and have a capacity of 3,000 ADT. Existing examples include Link Lane, Humboldt Street and Mayette Avenue.

Local streets provide access to destinations within a residential neighborhood or business district. Local streets may be loop streets or cul-de-sacs. Travel distance to a collector should be short, not much longer than half a mile. Right-of-way widths range from 40 to 48 feet, and capacity should not exceed 800 ADT. Pavement cross-sections are designed for relatively low speed travel with parking permitted on at least one side of the street.

Industrial streets can be either collector or local streets, but are designed to provide access to industrial or commercial uses which generate heavy truck traffic. These streets normally have four lanes of pavement in a 76-foot minimum right-of-way to facilitate truck movements. Generally no curb parking is allowed.



Rural roads may be major or collector streets in terms of their traffic carrying function. Separate turning lanes, passing lanes, curbs, gutters, and sidewalks are included only where necessary. Design details will vary, but this type of road should harmonize as much as possible with the rural environment. Rural roads have two lanes in a 52, 56 or 60 foot right-of-way and have a capacity of up to 9,000 ADT. Examples are Bennett Valley Road south of Yulupa Avenue, Calistoga Road north of Rincon, Hall Road, and Olivet Road.

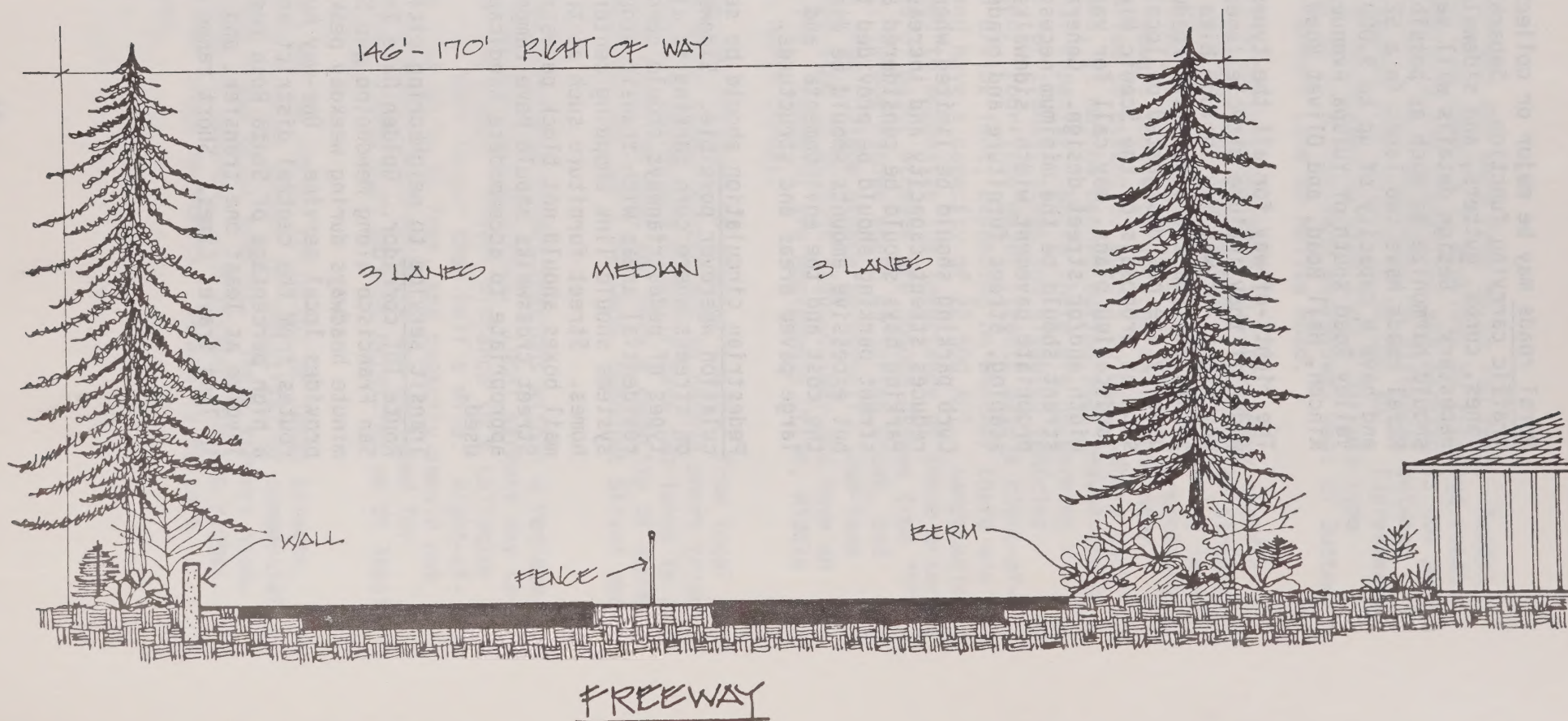
The rights-of-way for all the types of trafficways will be wider if they include bicycle lanes. Even freeway and expressway rights-of-way may include bike lanes if they are safely separated from the automotive roadways. Special bicycle lanes usually are not designated on local streets. Other considerations, such as proposals of the Scenic Highway Element or parkway landscaping plans, may call for variations in right-of-way width and/or street design. Generally the right-of-way for any street should be the minimum necessary to accommodate the appropriate pavement width, sidewalks, utilities, drainage, landscaping, street furniture and grade slopes.

Curb parking should be limited wherever practical because it reduces street capacity and increases accident potential. Parking bays should be considered as an alternative. Off-street parking should be provided to meet demonstrated needs, but excessive amounts should be discouraged both because of the cost and the environmental and aesthetic disadvantages of large paved areas and structures.

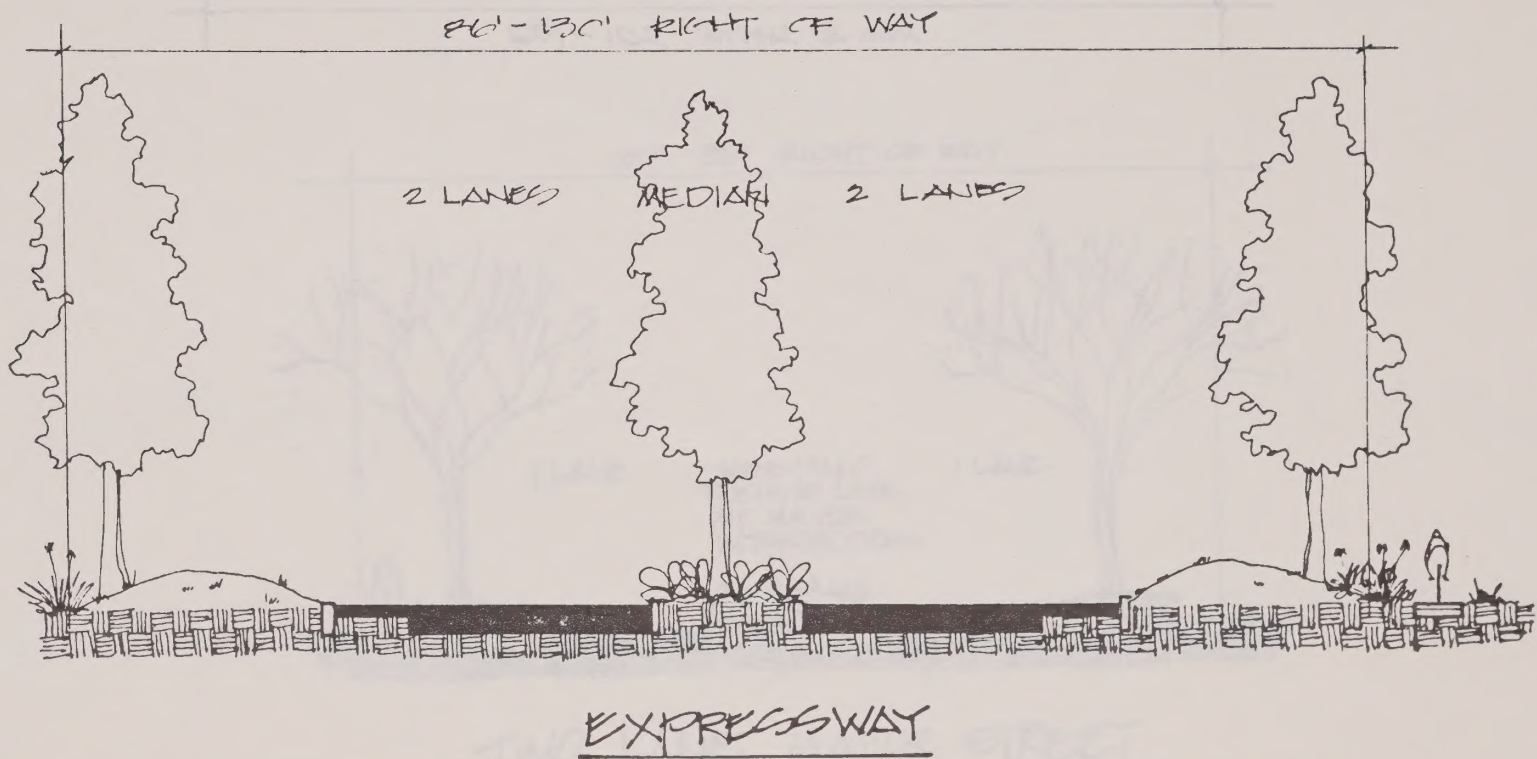
Pedestrian circulation should be separated from vehicular circulation wherever possible. Sidewalks usually are necessary on streets where curb parking is allowed. Sidewalks and other types of pedestrianways should connect activity centers and residential areas with transit stops. Neighborhood walkway systems should link shopping centers, schools, and parks with homes. Street furniture such as traffic signals, signs and mail boxes should not block pedestrian movements on sidewalks. Street crosswalks should have ramped curbs, and design standards appropriate to accommodate handicapped pedestrians should be used.

Transit service to neighboring cities now is operated only in the Route 101 corridor. Golden Gate Transit provides service to San Francisco along Mendocino and Santa Rosa Avenues on 30-minute headways during weekday peak periods. Santa Rosa Transit provides local service. One-way bus loops operating on radial routes from the central district are within walking distance of a high percentage of Santa Rosa residents. Cross-town trips involve at least one transfer, and the circuitous routes result in long travel times. Short range plans (to 1980) call for

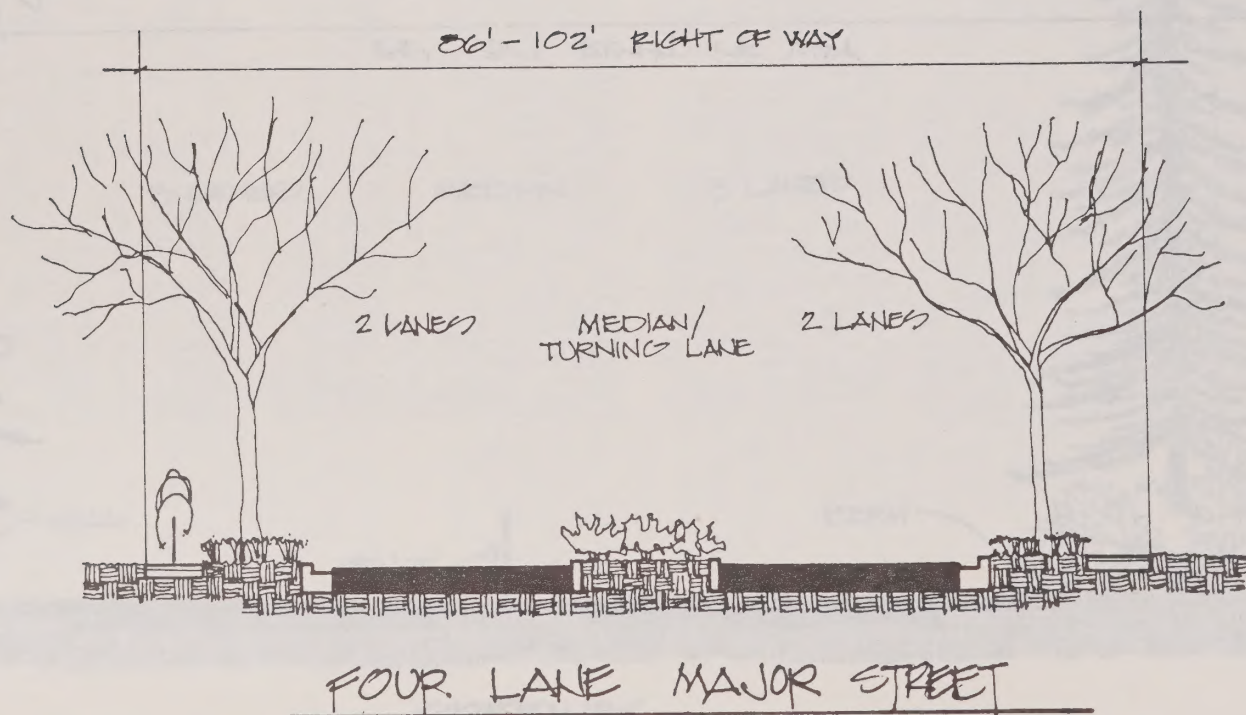




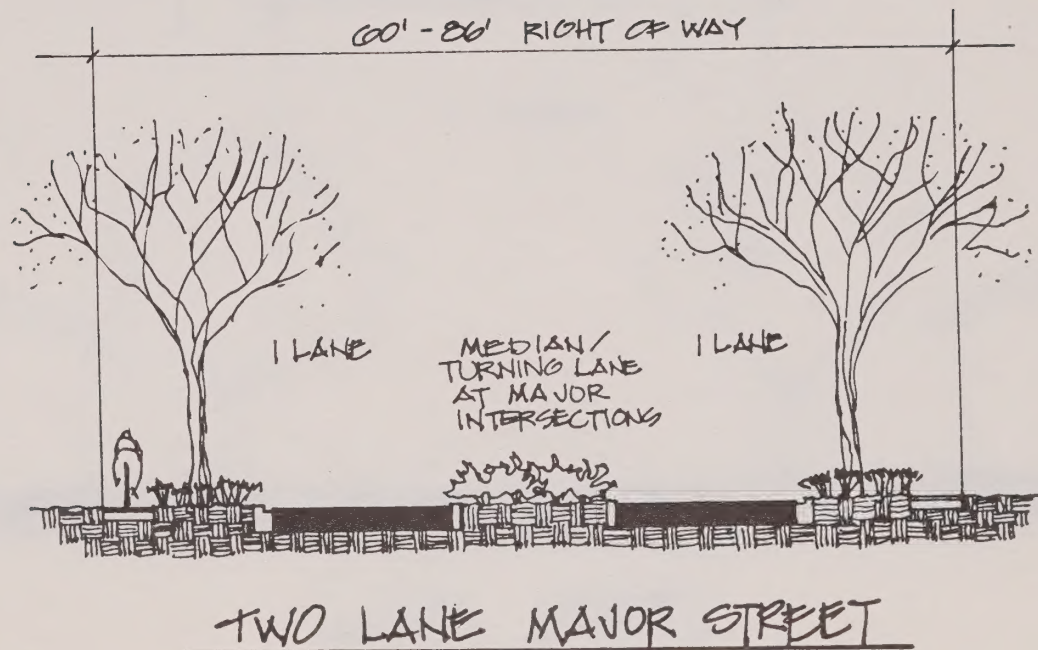










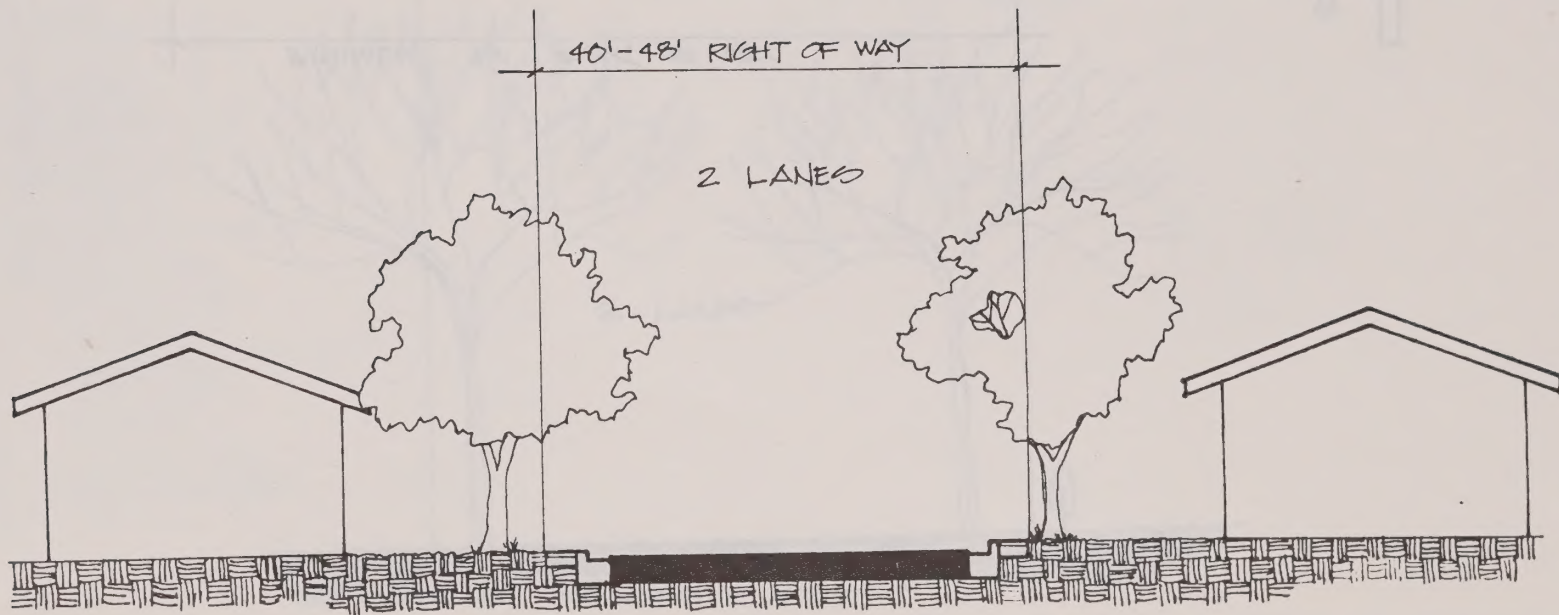








INDUSTRIAL ROAD

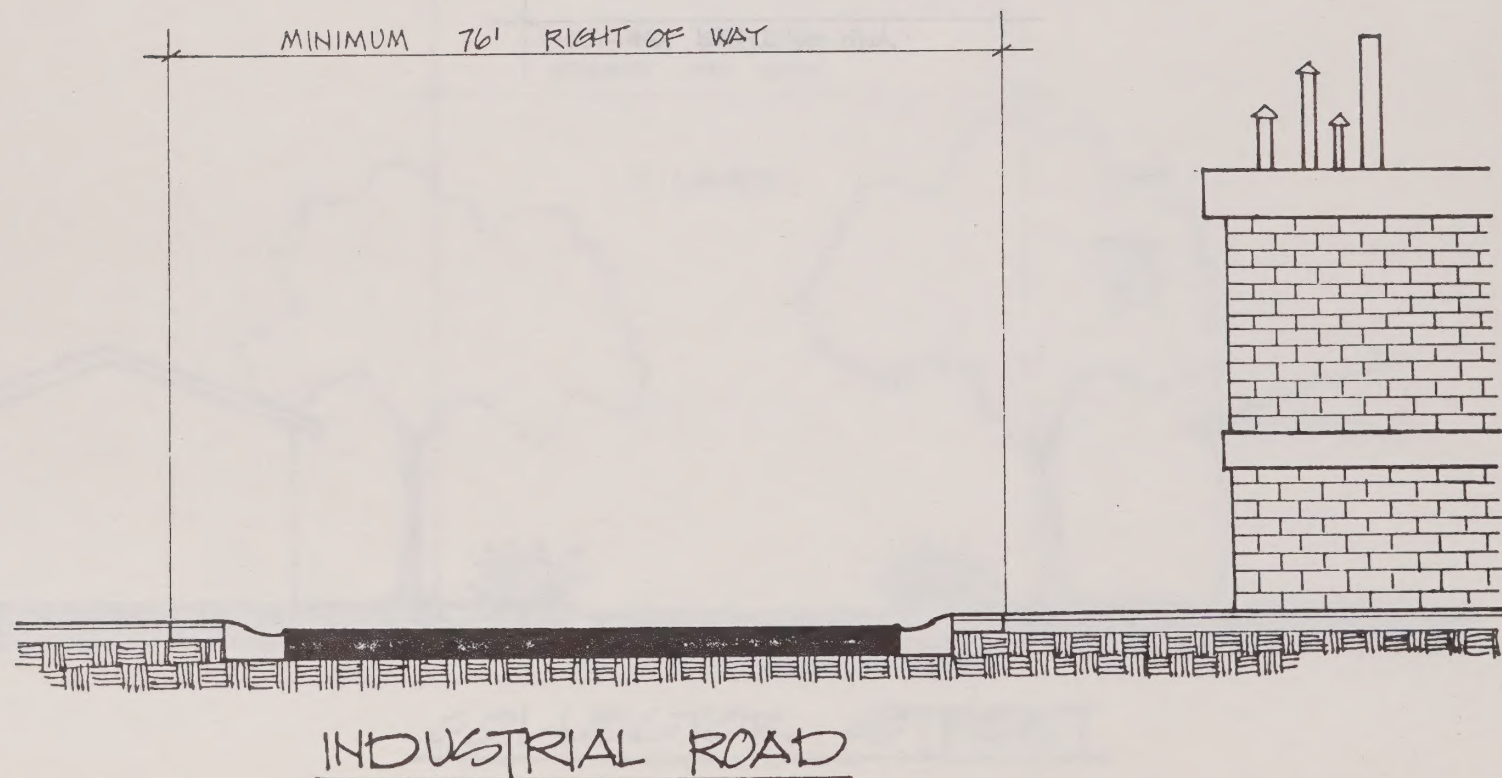


40'-48' RIGHT OF WAY

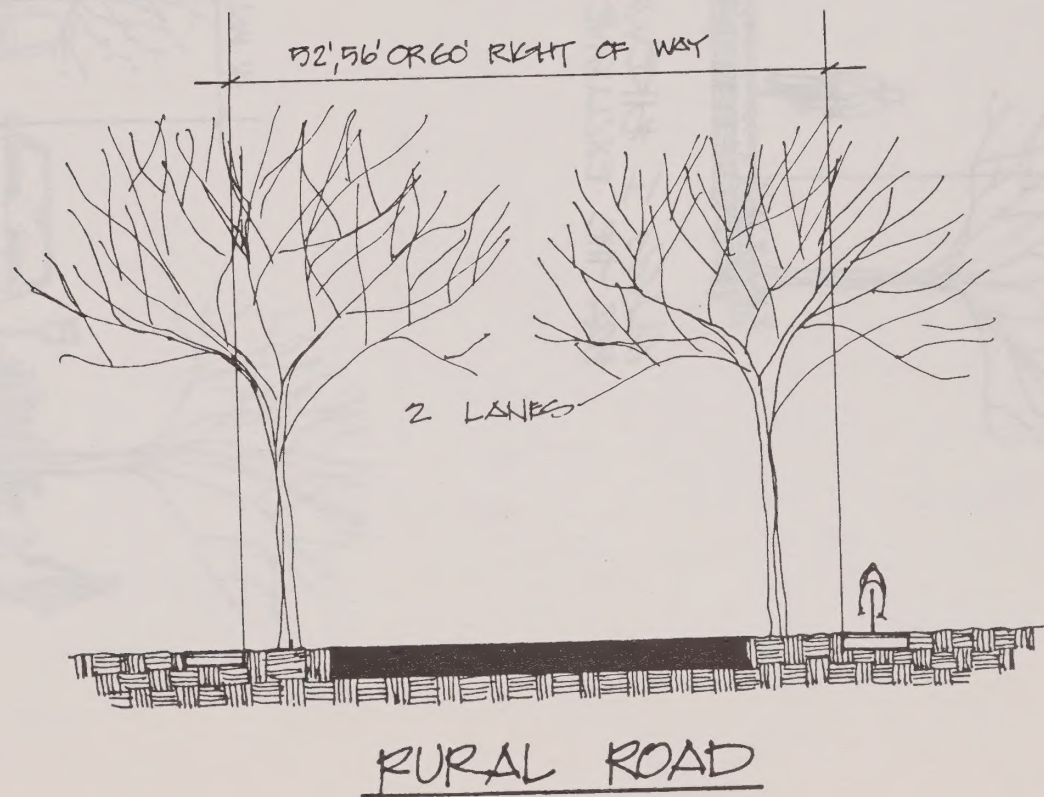
2 LANES

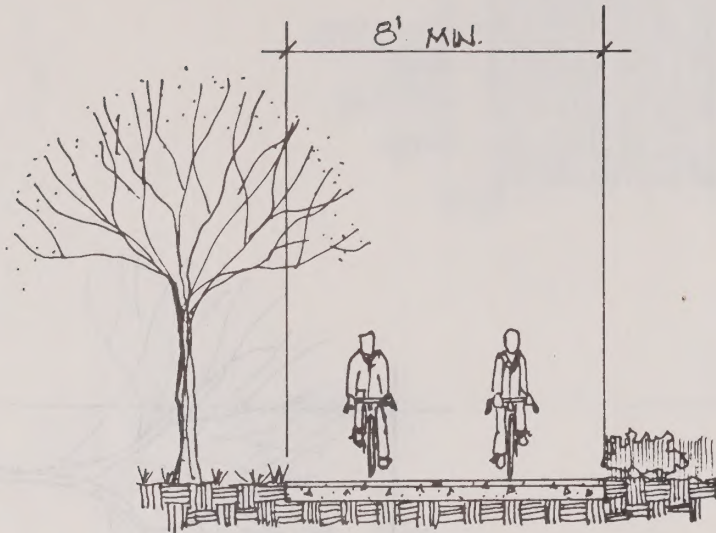
LOCAL STREET



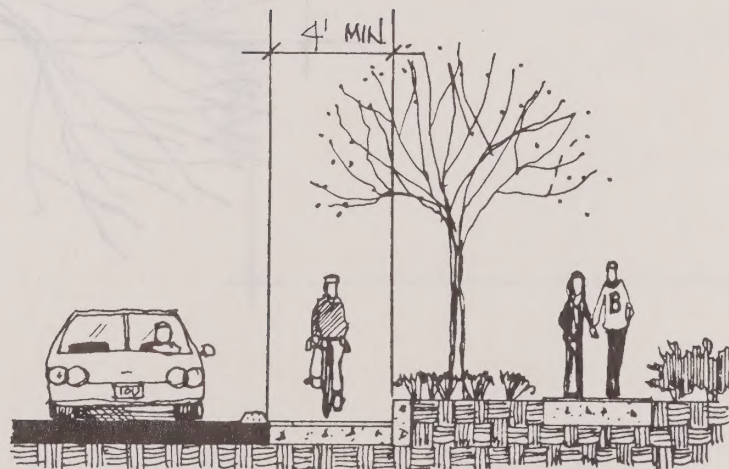






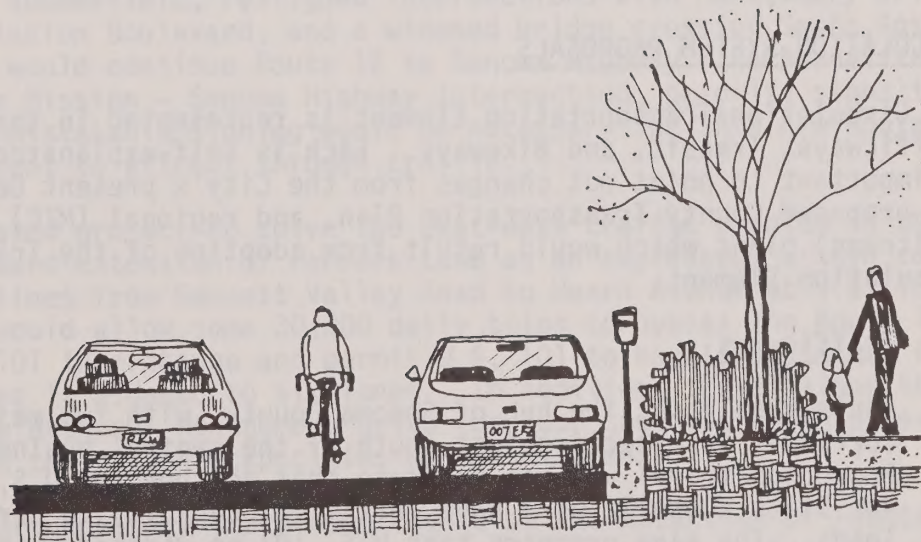


CLASS I BIKEWAY  
FOR THE EXCLUSIVE USE OF BICYCLES.



CLASS II BIKEWAY: ADJACENT TO, AND  
SEPARATE FROM, AUTOMOBILE AND  
PEDESTRIAN TRAFFIC.





CLASS III BIKEWAY: A SHARED BIKEWAY  
IN WHICH THE BICYCLE OCCUPIES THE SAME  
RIGHT OF WAY WITH AUTOMOBILE OR  
PEDESTRIAN TRAFFIC.

two-way bus service with 30 minute headways on central routes, 45 minute headways in the southwest area of the city, and connecting some routes to reduce transfers. These service improvements on existing routes are to be accompanied by extensions in the southwest, west, and far north areas.

Bikeways should provide a safe and convenient network of identified routes. All activity centers and residential areas should be linked.

A Class I bikeway is for the exclusive use of bicycles. Street and pedestrian crossings are kept to a minimum or are avoided by building underpasses or overpasses. This type of bikeway can best be located in parks or alongside of freeways, expressways, railroad rights-of-way, or waterways. Examples can be seen in Howarth and Spring Lake Parks. A bikeway should be at least eight feet wide, but 12 feet allows one cyclist to pass two others riding side by side.

Class II bikeways are adjacent to but separated from motor vehicle and/or pedestrian traffic. While the cyclist has a separate path, it may be preempted by turning or parking automobiles. This type of bikeway can be added easily to existing streets by removing curb parking or narrowing travel lanes to provide a path separated by a low berm and painted markings, interrupted at appropriate intervals. One-way lanes should be at least four feet wide.

Class III bikeways are shared bikeways where the cyclist occupies the same right-of-way with either motor vehicles or pedestrians. Signs are used to designate that the street or path also is to be used by cyclists. While this type of bikeway is the most hazardous, it also is the least expensive to install and is appropriate on local streets with little traffic.

## CIRCULATION SYSTEM PROPOSALS

The Circulation/Transportation Element is represented in three maps: Trafficways, Transit, and Bikeways. Each is self-explanatory, but it is important to point out changes from the City's present General Plan, the proposed County Transportation Plan, and regional (MTC) and State (Caltrans) plans which would result from adoption of the Transportation/Circulation Element.

### Trafficways

Santa Rosa is at the hub of Sonoma County, with two major travel corridors intersecting just south of the central business district. Projected travel volumes indicate that neither the U.S. 101 freeway nor State Route 12 will have sufficient capacity to carry future loads. The plan proposes that U.S. 101 be widened within the existing right-of-way from the current four lanes to six lanes. This would allow traffic volumes to increase from the present 50,000 ADT to 80,000 ADT capacity. Special devices such as signalized freeway on-ramps might be necessary late in the planning period to maintain reasonable levels of service during peak hours. The new



Bicentennial Way-U.S. 101 freeway interchange will provide relief for the overburdened Steele Lane interchange. Widening U.S. 101 to eight lanes was investigated by the County Transportation Study, but the six lane option was judged to have the lowest cost and the least adverse environmental impact.

Most of the traffic on State Route 12 (Sonoma Highway) has local origins and destinations. Terrain and existing development patterns have resulted in funneling most east-west traffic onto this route. Currently the highest volume is 27,000 ADT at the Mission Boulevard intersection. This figure is projected to double by the year 2000. The present General Plan proposal to extend Route 12 as a freeway facility east to Lawson's Corner would attract less than 25 percent of the future traffic volume because the major travel demand is for local connections between Rincon Valley and the rest of the Santa Rosa area. The freeway, with interchanges only at Summerfield Road and Lawson's Corner, would have bypassed Rincon Valley and the Calistoga Road area and would have served only through traffic from the Sonoma Valley where recent zoning changes have reduced growth potential, making two lanes on Route 12 east of Oakmont adequate to handle traffic at least until the year 2000. The proposed plan deletes construction of the Route 12 freeway between Summerfield Road and Lawson's Corner because it would attract less than 25 percent of its capacity in the year 2000 at a current \$4 to \$5 million cost and would serve only a minor portion of Santa Rosa's intra-city circulation needs.

Route 12 should be constructed as a four-lane freeway from its interchange with U.S. 101 to an interchange with Farmers Lane. East of Farmers Lane, an at-grade expressway should be built within the existing reserved right-of-way. There should be a signalized intersection at Yulupa Avenue and extra turning lanes onto Summerfield Road to create a through route. Full arterial improvements north along Summerfield, realigned intersections with Montgomery Drive and Mission Boulevard, and a widened bridge crossing Santa Rosa Creek would continue Route 12 to Sonoma Highway. Rechannelization of the Mission - Sonoma Highway intersection, priority signalization, and unmistakable signing would be necessary for this new Route 12 alignment to attract through traffic.

A related project to solve the east-west traffic problem is the southward extension of Farmers Lane as an expressway within current plan lines from Bennett Valley Road to Hearn Avenue at U.S. 101. This would allow some 30,000 daily trips to bypass the Route 12 - U.S. 101 interchange and permit U.S. 101 to handle projected traffic volumes if widened to six lanes. In addition, travel along the Sonoma Avenue - Montgomery Drive corridor could be held to levels within the present capacities of these streets.

Another necessary improvement would be the extension of Fountain Grove Parkway as shown on the present General Plan, but with modifications at each end. The eastward connection should tie directly to Montecito Boulevard at Brush Creek Road in order to utilize the



existing route through the middle of Rincon Valley from Calistoga Road, and to connect with the existing street network so that traffic will be able to funnel easily to Fountain Grove Parkway. Montecito Avenue will connect with the Parkway west of Brush Creek Road and will revert to a collector street. The route proposed by the County further north connecting with Badger Road is not shown because it would have required traversing a particularly steep unstable hillside. The Parkway's western terminus should connect directly with U.S. 101 at the new Bicentennial Way interchange in order to relieve the Mendocino Avenue intersection and to allow direct access to the west side of the freeway. The Parkway would link Rincon Valley with the County Center, Coddington, and Piner Road industrial area, and the 16,000 daily trips attracted would provide relief for Fourth Street, Pacific Avenue, and Franklin Avenue. Because this route would traverse undeveloped hillsides with unstable soils, extreme care should be employed in its design and tight controls imposed on any adjacent development.

A number of north-south routes west of and parallel to U.S. 101 are shown on the present General Plan, and the County Transportation Plan proposes a Dutton Avenue-Coffey Lane distributor road to ease the burden on Route 101. An analysis of the projected major trip flows within the corridor indicate that the major need is for better short connectors between east-west arterials which cross the freeway. The planned extension of Range Avenue north to Piner Road and its connection with the Russell Avenue freeway interchange would help to fulfill this need. In addition, Range Avenue should be extended south, connecting with Cleveland Avenue at Frances Avenue, to create a westside bypass of Coddington. Dutton Avenue should be extended from Hearn Avenue to Guerneville Road, and Coffey Lane should become a two-lane arterial from Guerneville Road to Hopper Lane. Adequate turning lanes should be provided at the jogged intersection of Dutton-Hopper and Guerneville Road, although the amount of through traffic will not be great. Dutton Avenue need not continue south of Hearn Avenue, but Corby Avenue should function as a southward extension of Cleveland Avenue-Wilson Street.

Further to the west, Stony Point-Marlow Road and Wright-Fulton Road are shown as major streets, although proposed interchanges with Route 12 have been eliminated because projected traffic volumes do not warrant them before the year 2000. Wright Road ends at Ludwig Avenue, its current terminus. The Llano Road-Piezzi Road-Hartman Lane-Laughlin Road route between the County Airport and the sewage treatment plant, and the Olivet-Slusser Road connection shown on the present General Plan, have been omitted because no urban development is proposed for lands west of Fulton Road.

The Wood Road extension connecting with Hopper Lane was deleted, and San Miguel Road is shown extended to Industrial Drive to better serve the projected development west of the railroad and north of Piner Road. Piner Road should be realigned to connect directly with the Russell Avenue-U.S. 101 interchange, providing a through route to the Fountain Grove Parkway. West College Avenue need not be extended beyond Fulton Road because projected volumes can be handled adequately on Guerneville Road.



County studies of the Sebastopol area indicate a need for extension of Todd Road westward across the Laguna to Route 116 and beyond. This route would divert some traffic from Route 12 in Santa Rosa and would help to relieve U.S. 101 north of Todd. Todd Road should be widened to four lanes between Llano Road and Santa Rosa Avenue. The County's proposal to extend Todd Road east to Petaluma Hill Road is shown on the plan.

Hearn Avenue should be extended from Stony Point Road to Wright Road to serve projected traffic volumes generated by the proposed industrial development on the former Air Center. The present General Plan's proposed Bellevue Avenue-U.S. 101 interchange and extension of Bellevue east to Petaluma Hill Road will not be needed because of the small amount of development projected in the area.

Brookwood Avenue should be improved to a major street south of Route 12 and connected to Farmers Lane extension via Allan Way. This improvement plus the extension of Aston Avenue west to the Baker Avenue freeway interchange would provide better access to South Park and the Fairgrounds.

Summerfield Road is not designated as a major street south of Bethards Drive because a through route to upper Bennett Valley is not warranted. Hillside development east of the golf course can be served by local streets.

Middle Rincon Road is shown as a two-lane major street to handle projected traffic volumes between Sonoma Highway and Montecito Boulevard and as a collector street north to Badger Road beyond which lower density areas do not warrant its extension northward. The extension of Rincon Avenue to Brush Creek Road, proposed by the present General Plan, is omitted, and Badger Road is shown as the only east-west collector necessary to serve this area between Calistoga Road and Brush Creek Road.

The connection of Fountain Grove Parkway and Mark West Springs Road as a northerly extension of Parker Hill Road is not proposed because of the lack of development expected on the unstable hillsides. Access to the Fountain Grove planned community from Old Redwood Highway is not shown because a through route will not be needed and development can be served by local streets. Redesign of the existing Mendocino Avenue-Old Redwood Highway-Fountain Grove Parkway intersection and the U.S. 101 interchange will be necessary to improve presently inadequate operating conditions.

Laughlin Road east of Slusser Road is not shown on the plan because County Airport plans indicate that it may be severed by a runway extension.

The current General Plan shows several major streets which traverse farmlands or hill areas. Most of these routes are in scenic areas with little or no urban development projected on adjacent lands. These and other existing roads in rural areas are designated as rural roads.



Several streets which are designated as major streets on the present General Plan have been reduced to collector street status because of a projection showing low traffic volumes: Third Street west of Dutton Avenue, Dutton Avenue south of Sebastopol Avenue, Bellevue Avenue, Montecito Avenue, Hoen Avenue, "A" Street, Ninth Street west of Dutton Avenue, and County Center-Administration Drive.

Montgomery Drive, which was changed from a major street to a collector street by the Central District Plan, is shown as a two-lane major street. Wherever possible, heavy traffic has been planned to be diverted to parallel streets, but the high volume of local traffic which Montgomery still will carry warrants its designation as a major street.

### Transit

The City's current transit plan is designed to meet present local demand. Incremental improvements are planned, based on evaluation of transit ridership, funding opportunities, and needed service extensions. The County's proposed long-range transit plan includes intra-community service which is expected to offer an attractive alternate to the automobile. Santa Rosa's local service is projected by the County to cause a major diversion of travel to transit, somewhere in the range of 5 to 10 percent of off-peak hour trips and 10 to 20 percent of peak hour trips. A more modest goal of one to two percent of all planning area trips is proposed by the Circulation/Transportation Element as being an achievable diversion to transit. By concentrating transit diversion efforts on traffic corridors which now are heavily congested, a 10 percent diversion of peak hour trips to transit, combined with the other proposed trafficways proposals, would allow all major streets to operate at the Citizen Committee "C" service level goal.

New crosstown routes are proposed to operate from Coddington to Rincon Valley via Fountain Grove Parkway, to Bennett Valley via the County Center and Montgomery Village, and to the southeast area via Stony Point Road. The County Airport and the Wikiup/Larkfield area are to be served by a new route originating at Coddington. The Oakmont line and Golden Gate Transit routes are shown unchanged. All of the other existing routes have been altered to fit the future land use pattern proposed by the Land Use Element. While transit routes have been drawn along specific existing or proposed streets, in several instances service on adjacent streets would provide coverage equal to the routes shown.

Bus operation in transit-intensive corridors should be given priority. Exclusive bus lanes can be reserved during peak hours. Where curb parking now is permitted, prohibiting it during peak periods would make exclusive bus lanes available. At transfer and major pick-up points, lighted shelters with benches, system maps, and schedules should be provided. Throughout the system, bus stops and loading areas should be clearly marked.



The proposed plan assumes a maximum off-peak headway or waiting time between buses which is adequate for minimum service in each area. However, additional service should be provided during peak hours and at other times to meet special needs. Except for 90-minute airport service, a minimum of one bus per hour in each direction is proposed in low density residential areas. This should be increased to two buses per hour during peak periods. Crosstown service is proposed to be scheduled at two buses per hour minimum, increasing to four per hour during peak periods. The Cleveland Avenue and Montgomery Drive corridor routes are expected to warrant four buses per hour minimum and twelve per hour during the peaks. The Sebastopol Road corridor is expected to need the same level of service as crosstown routes.

### Bikeways

In addition to the current City Bikeways Plan, both the State and the County have proposed bikeway routes within the Planning Area. All major elements of these three systems have been included in the bikeways proposals of the Circulation/Transportation Element.

Caltrans has designated a north-south route following Petaluma Hill Road, Santa Rosa Avenue, Mendocino Avenue, and Old Redwood Highway. A second route would run from the central district east on Fourth Street and Sonoma Highway. These are designed as long-distance touring routes, not necessarily following State highways, but taking advantage of existing transportation rights-of-way connecting major destination points. County bikeways proposals have focused on providing a recreational experience for the cyclist and connecting major activity centers. The City's present bikeways proposals consist of an existing primary route system plus a policy to create bicycle lanes on all major and collector streets or bike paths on separate rights-of-way to link residential areas with activity centers and scenic areas.

While the three combined systems are shown on the proposed plan, all major and collector streets have not been designated as bikeways because some high traffic volume streets now are and will continue to be too dangerous for cycling. In addition, because the City is now self-insured, designation and design of bicycle routes by the City must be considered on the basis of possible exposure to claims.

### IMPLEMENTATION

Implementation of the Circulation Element's proposals will require the scheduling of improvement priorities within the limits of available sources of funds. It is recommended that costs be matched against projected income and that a five-year improvement program be prepared. Priorities should be set but should be subject to revision when the program is reviewed and updated annually. Cooperation among Caltrans, MTC, the County, and the City will be essential because many improvement projects will require approval of funding at the State or regional agency level, and because responsibility for some projects will be shared.



## Trafficways

Proposed trafficways improvements have been divided into lists of projects arranged according to jurisdiction, time period, and type of improvement. In general, the State is expected to be responsible for improvements to State highway routes, and the County will be responsible for road projects outside of urban areas. Joint projects have been broken down, with the appropriate portion shown under each heading (State, County or City).

The terminology classifying the proposed level of improvement indicates a broad category responding to forecast trafficway capacity deficiencies. Routine maintenance and safety improvements are not included.

Major improvements include new roadways and right-of-way acquisition for either a new route or a major widening and intersecting street modifications.

Medium improvements include lane additions without significant right-of-way acquisition, major intersection modifications, and replacement or widening of bridges.

Minor improvements include signalization and intersection turn lane additions, lane widenings, and general traffic management.

Improvement costs are order-of-magnitude estimates based on typical unit costs developed by DeLeuw, Cather and Company and used by JHK & Associates for the County Transportation Study. Right-of-way costs cover land acquisition only (not removal of structures or severance damages) and will vary depending on the precise properties acquired. Construction costs will vary depending on factors which can be identified only upon completion of detailed engineering plans. The timing of each project is indicated by year of completion based on forecasts of traffic demand. Actual construction timing will depend on the availability of financing as well as need factors other than traffic demand, such as the condition of existing improvements.

## Transit

Implementation of the proposals for improvement of the City's transit system should consist of a gradual upgrading of existing service and extensions to unserved areas. As the number of transit passengers rises in the major corridors, the number of buses should be increased and neighborhood feeder lines rerouted to improve service. The timing of these incremental improvements should be aimed at meeting the demand for transit necessary to maintain reasonably congestion-free trafficways. Van pooling and other paratransit programs can be started immediately, particularly with major employers.

Farebox revenues are expected to pay only 65 percent of the system's operating costs; so federal, state and local subsidies will be



SANTA ROSA TRAFFICWAYS IMPROVEMENTS

|                           |                                                                      | Improvement |                 |               | Cost (\$000) |              |       |      |
|---------------------------|----------------------------------------------------------------------|-------------|-----------------|---------------|--------------|--------------|-------|------|
| Name                      | Location                                                             | Level       | Miles of Length | Through Lanes | Right of Way | Construction | Total | Year |
| STATE                     |                                                                      |             |                 |               |              |              |       |      |
| Route 101                 | River Rd. to 0.2 miles north of Mendocino Ave.                       | Medium      | 1.7             | 6             | -            | 2,108        | 2,108 | 1995 |
| Route 101                 | 0.2 miles north of Mendocino Ave. to 0.2 miles south of Russell Ave. | Major       | 1.1             | 6             | 500          | 3,432        | 3,932 | 1980 |
| Route 101                 | 0.2 miles south of Russell Ave. to 0.2 miles north of College Ave.   | Medium      | 1.2             | 6             | -            | 1,872        | 1,872 | 1990 |
| Route 101                 | 0.2 miles north of College Ave. to 0.3 miles south of Route 12       | Major       | 1.6             | 6             | 900          | 6,912        | 7,812 | 1990 |
| Route 101                 | 0.3 miles south of Route 12 to Todd Rd.                              | Medium      | 2.8             | 6             | -            | 3,472        | 3,472 | 1990 |
| Route 12 Freeway          | Santa Rosa Ave. to Farmers Lane                                      | Major       | 1.4             | 4             | -            | 5,824        | 5,824 | 1995 |
| Route 12 Expressway       | Farmers Lane to Summerfield Rd.                                      | Major       | 1.4             | 4             | -            | 1,624        | 1,624 | 1995 |
| Summerfield Rd.           | Hoen Ave. to Montgomery Dr.                                          | Medium      | 1.0             | 4             | 90           | 620          | 710   | 1990 |
| Montgomery Dr.            | Summerfield Dr. to Mission Blvd.                                     | Medium      | 0.2             | 4             | -            | 124          | 124   | 1990 |
| Mission Blvd.             | Montgomery to Sonoma Hwy.                                            | Major       | 0.1             | 4             | 20           | 104          | 124   | 1990 |
| Sonoma Hwy. Expressway    | Mission Blvd. to Los Alamos Rd.                                      | Minor       | 2.3             | 4             | -            | 253          | 253   | 1990 |
|                           | Los Alamos Rd. to Pythian Rd.                                        | Medium      | 3.4             | 4             | 180          | 2,108        | 2,288 | 1995 |
| COUNTY                    |                                                                      |             |                 |               |              |              |       |      |
| Guerneville Rd.           | Highway 116 to Fulton Rd.                                            | Medium      | 5.5             | 2             | 81           | 1,155        | 1,236 | 2000 |
| Occidental Rd.            | Sanford Rd. to Route 12                                              | Medium      | 2.9             | 2             | 64           | 609          | 673   | 1995 |
| River Rd.                 | Fulton Rd. to Route 101                                              | Medium      | 0.8             | 2             | -            | 144          | 144   | 2000 |
| Stony Point Rd.           | Hearn Ave. to Todd Rd.                                               | Medium      | 1.8             | 2             | 162          | 324          | 486   | 2000 |
| Santa Rosa Ave.           | Yolanda Ave. to Todd Rd.                                             | Medium      | 1.8             | 4             | -            | 1,116        | 1,116 | 1995 |
| Petaluma Hill Rd.         | Kawana Springs Rd. to Snyder Lane                                    | Medium      | 2.5             | 2             | 75           | 450          | 525   | 1995 |
| Todd Rd.                  | Santa Rosa Ave. to 0.6 miles west of Llano Rd.                       | Medium      | 3.7             | 2             | 82           | 666          | 748   | 1980 |
| CITY                      |                                                                      |             |                 |               |              |              |       |      |
| Fountain Grove Expressway | Montecito Blvd. to Parker Hill Rd.                                   | Major       | 2.3             | 4             | 460          | 1,196        | 1,380 | 1990 |
|                           | Parker Hill Rd. Mendocino Ave.                                       | Major       | 1.6             | 4             | 944          | 1,816        | 2,760 | 1990 |
|                           | Mendocino Ave. to Route 101/Russell Ave. interchange                 | Major       | 0.3             | 4             | 348          | 312          | 540   | 1980 |



| Name                        | Location                             | Level          | Improvement     |               | Cost (\$000) |              |       | Year |
|-----------------------------|--------------------------------------|----------------|-----------------|---------------|--------------|--------------|-------|------|
|                             |                                      |                | Miles of Length | Through Lanes | Right of Way | Construction | Total |      |
| CITY                        |                                      |                |                 |               |              |              |       |      |
| Russell Ave.                | Piner Rd. to Route 101 interchange   | Major          | 0.3             | 4             | 348          | 312          | 540   | 1980 |
| Range Ave.                  | Piner Rd. to Guerneville Rd.         | Major          | 1.0             | 4             | 1,160        | 1,040        | 2,200 | 1980 |
|                             | Guerneville Rd. to Cleveland Ave.    | Major & Medium | 0.8             | 2             | 248          | 348          | 596   | 1985 |
| Piner Rd.                   | Range Ave. to Marlow Rd.             | Medium         | 1.0             | 4             | 100          | 520          | 620   | 2000 |
|                             | Marlow Rd. to Fulton Rd.             | Medium         | 1.0             | 2             | 90           | 310          | 400   | 1990 |
| Coffey Lane                 | San Miguel Rd. to Guerneville Rd.    | Minor          | 1.5             | 2             | -            | 75           | 75    | 1995 |
| Marlow Rd./ Stony Point Rd. | Piner Rd. to 3rd St.                 | Medium         | 2.5             | 4             | 400          | 1,550        | 1,950 | 1995 |
| Stony Point Rd.             | 3rd St. to Route 12                  | Minor          | 0.2             | 4             | -            | 122          | 122   | 1990 |
|                             | Route 12 to Hearn Ave.               | Medium         | 1.0             | 4             | 90           | 620          | 710   | 1985 |
| Fulton Rd.                  | Route 101 to River Rd.               | Medium         | 0.7             | 2             | -            | 126          | 126   | 1995 |
|                             | River Rd. to Guerneville Rd.         | Medium         | 3.0             | 4             | 270          | 930          | 1,200 | 1995 |
| Wright Rd.                  | Guerneville Rd. to Route 12          | Medium         | 1.8             | 4             | 162          | 558          | 620   | 1990 |
|                             | Route 12 to Sebastopol Rd.           | Major          | 0.2             | 4             | 36           | 124          | 150   | 1985 |
|                             | Sebastopol Rd. to 0.8 miles south    | Medium         | 0.8             | 2             | 35           | 288          | 323   | 1995 |
|                             | 0.8 miles south to Ludwig Ave.       | Minor          | 0.7             | 2             | -            | 126          | 126   | 2000 |
| Guerneville Rd.             | Fulton Rd. to Marlow Rd.             | Minor          | 1.0             | 4             | -            | 50           | 50    | 1995 |
|                             | Marlow Rd. to Dutton Ave.            | Minor          | 0.9             | 4             | -            | 45           | 45    | 1995 |
|                             | Dutton Ave. to Range Rd.             | Minor          | 0.4             | 4             | -            | 44           | 44    | 1985 |
| Steele Lane                 | Range Rd. to Mendocino Ave.          | Minor          | 0.9             | 4             | -            | 99           | 99    | 1985 |
| Dutton Ave.                 | Guerneville Rd. to West College Ave. | Major          | 0.8             | 4             | 544          | 704          | 1,248 | 1985 |
|                             | West College Ave. to 9th St.         | Minor          | 0.3             | 4             | -            | 15           | 15    | 1985 |
|                             | 9th St. to 3rd St.                   | Minor          | 0.6             | 4             | -            | 30           | 30    | 1995 |
|                             | 3rd St. to Sebastopol Rd.            | Minor          | 0.3             | 4             | -            | 15           | 15    | 1990 |
| Cleveland Ave.              | Francis St. to 9th St.               | Minor          | 0.7             | 4             | -            | 33           | 33    | 1985 |
| West College Ave.           | Fulton Rd. to Stony Point Rd.        | Minor          | 1.0             | 2             | -            | 35           | 35    | 1985 |
|                             | Stony Point Rd. to Dutton Ave.       | Medium         | 1.2             | 4             | 816          | 744          | 1,560 | 1995 |
|                             | Dutton Ave. to Morgan St.            | Medium         | 0.5             | 4             | 80           | 280          | 360   | 1980 |
| West 9th St.                | Dutton Ave. to Morgan St.            | Minor          | 0.5             | 4             | -            | 55           | 55    | 1985 |
|                             | Connection to Stony Point Rd.        | Medium         | 0.1             | 2             | 34           | 52           | 86    | 1985 |
| West 3rd St.                | Fulton Rd. to Stony Point Rd.        | Major          | 1.0             | 2             | 340          | 520          | 860   | 1990 |
| Sebastopol Rd.              | Wright Rd. to N.W.P. Railroad        | Minor          | 2.7             | 2             | -            | 297          | 297   | 1990 |



| <u>Name</u>                        | <u>Location</u>                       | <u>Level</u> | <u>Improvement</u>     |                      | <u>Right of Way</u> | <u>Cost (\$000)</u> |              | <u>Year</u> |
|------------------------------------|---------------------------------------|--------------|------------------------|----------------------|---------------------|---------------------|--------------|-------------|
|                                    |                                       |              | <u>Miles of Length</u> | <u>Through Lanes</u> |                     | <u>Construction</u> | <u>Total</u> |             |
| Hearn Ave.                         | Stony Point Rd. to Route 101          | Medium       | 1.3                    | 4                    | 336                 | 704                 | 1,040        | 1990        |
| Corby Ave.                         | Baker Ave. to Todd Rd.                | Minor        | 2.4                    | 2                    | -                   | 120                 | 120          | 1995        |
| Ludwig Ave.                        | Wright Rd. to Stony Point Rd.         | Minor        | 1.5                    | 2                    | -                   | 75                  | 75           | 2000        |
| Mendocino Ave./<br>Santa Rosa Ave. | Old Redwood Hwy.<br>to Steele Lane    | Medium       | 1.3                    | 4                    | -                   | 886                 | 886          | 1980        |
|                                    | Steele Lane to Sonoma Ave.            | Minor        | 1.8                    | 4                    | -                   | 198                 | 198          | 1990        |
| Santa Rosa Ave.                    | Sonoma Ave. to Hearn Ave.             | Minor        | 1.4                    | 4                    | -                   | 176                 | 176          | 2000        |
| Pacific Ave./<br>Bryden Lane       | Mendocino Ave. to 4th St.             | Minor        | 1.2                    | 2                    | -                   | 132                 | 132          | 2000        |
| College Ave.                       | Morgan St. to 4th St.                 | Minor        | 1.0                    | 4                    | -                   | 110                 | 110          | 1990        |
| 4th St.                            | College Ave. to Farmers Lane          | Minor        | 1.4                    | 4                    | -                   | 154                 | 154          | 1990        |
| Brookwood Ave.                     | College Ave. to Sonoma Ave.           | Major        | 0.4                    | 2                    | 116                 | 180                 | 296          | 1990        |
|                                    | Sonoma Ave. to Route 12               | Minor        | 0.5                    | 2                    | -                   | 55                  | 55           | 1990        |
| Sonoma Ave.                        | Santa Rosa Ave. to Summerfield Rd.    | Minor        | 2.6                    | 4                    | -                   | 286                 | 286          | 1995        |
| Farmers Lane                       | Sonoma Highway to Route 12 Freeway    | Minor        | 0.9                    | 4                    | -                   | 99                  | 99           | 1990        |
| Farmers Lane Expressway            | Route 12 Freeway to Route 101         | Major        | 2.5                    | 4                    | 1,700               | 3,100               | 4,800        | 1985        |
| Petaluma Hill Rd.                  | Santa Rosa Ave. to Farmers Lane Expy. | Medium       | 1.1                    | 2                    | -                   | 341                 | 341          | 1990        |
| Montgomery Dr./<br>Los Alamos Rd.  | Mission Blvd. to Route 12             | Medium       | 2.1                    | 2                    | 336                 | 840                 | 1,176        | 1995        |
| Mission Blvd.                      | Sonoma Hwy. to Montecito Blvd.        | Medium       | 1.0                    | 4                    | 36                  | 124                 | 160          | 1990        |
| Montecito Blvd.                    | Mission Blvd. to Calistoga Rd.        | Medium       | 1.3                    | 4                    | 51                  | 884                 | 935          | 1990        |
| Calistoga Rd.                      | Sonoma Hwy. to Montecito Blvd.        | Medium       | 1.2                    | 4                    | 135                 | 465                 | 600          | 2000        |

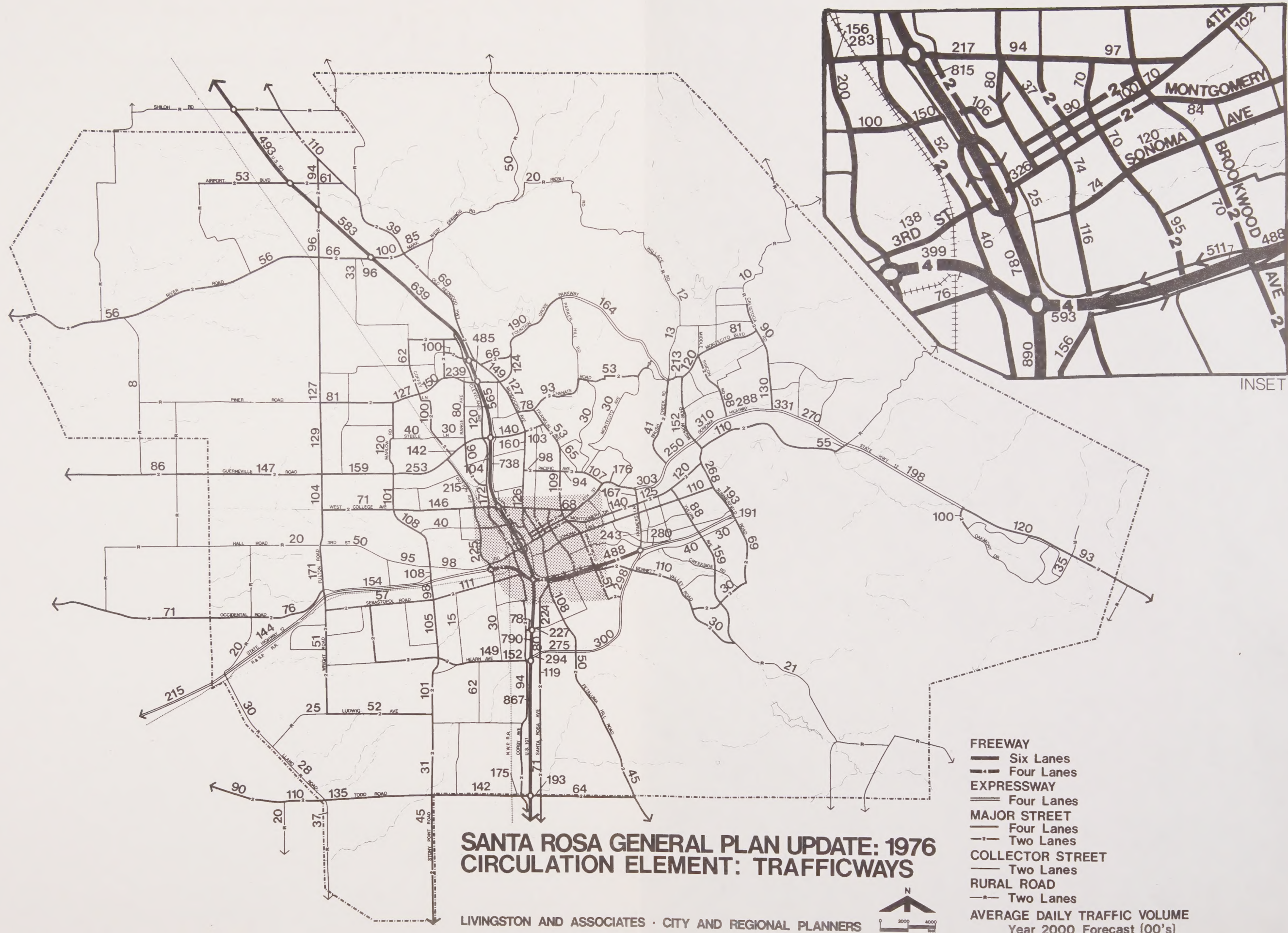


necessary to pay the balance of the operating costs and all of the capital improvement costs. Recently, available federal and state subsidy funds have been increasing to a level where they can be expected to finance most capital expenditures, leaving only operating deficits to be paid by local taxpayers.

### Bikeways

Bikeways in new developments will be built by the developer as a part of routine public right-of-way construction. While the State has no current plans to implement its touring route, it is expected that sections will be built at the same time as various state highway improvements are made. Some federal and state funds could be used for separate bikeway construction projects, although they typically have been used in conjunction with highway projects. Additions to existing bikeways financed from these sources could result in a highly discontinuous system for a number of years. Use of local funds probably will be necessary to close the gaps.

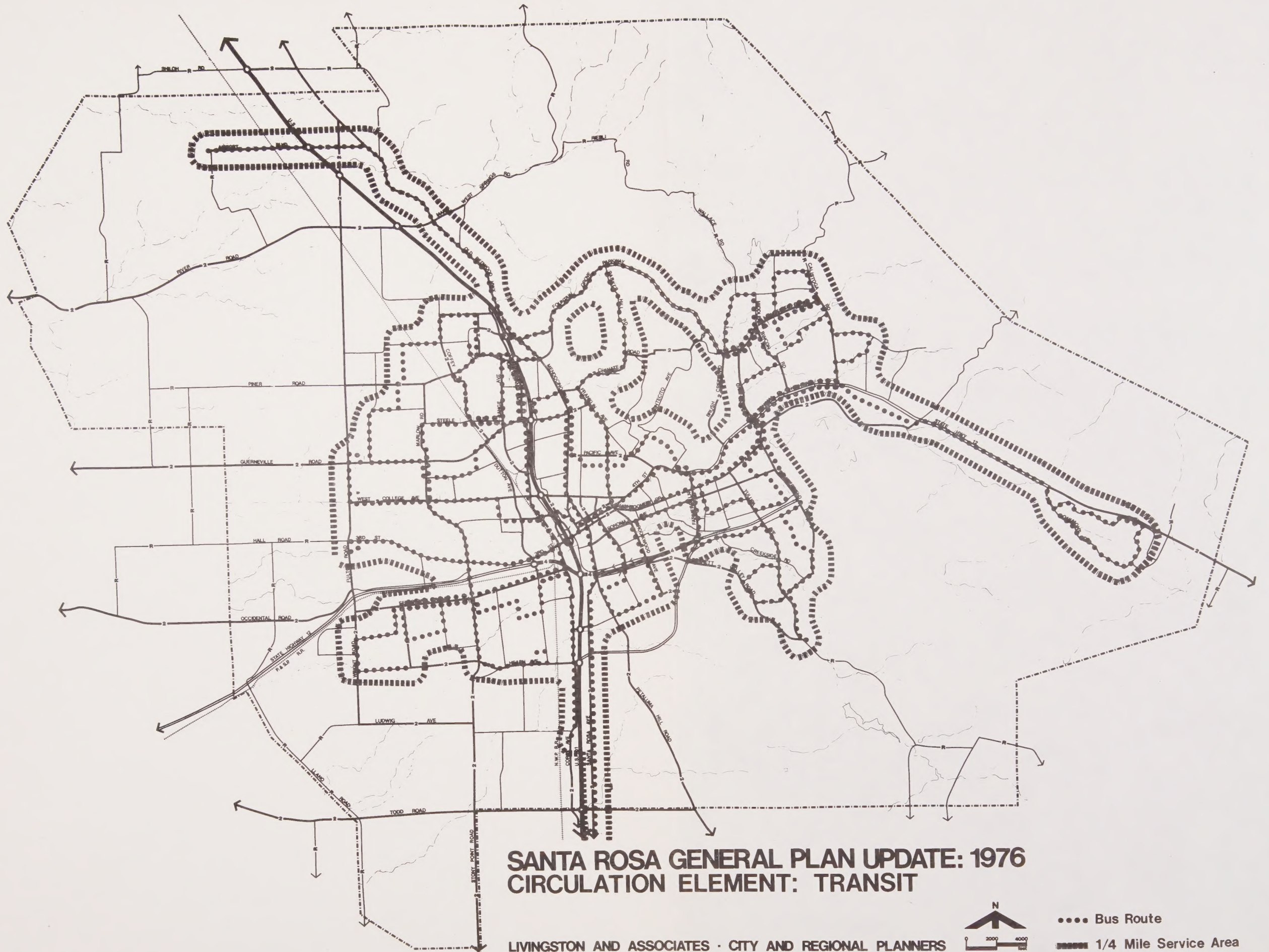






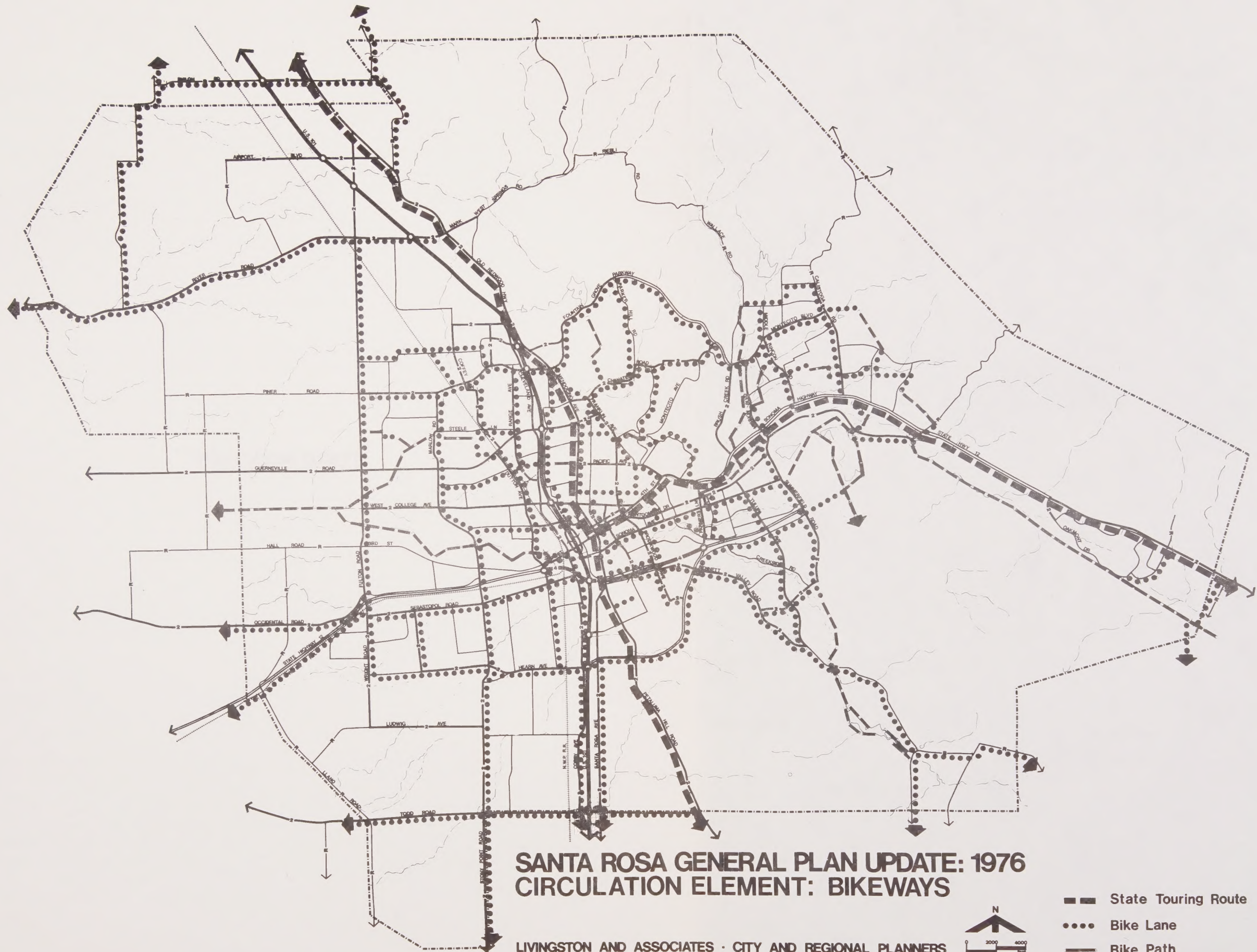
















## INTRODUCTION

Urban design is a term that refers to the form and character of a city or town. It is the process of creating a vision for the built environment that is both functional and aesthetically pleasing. Urban design is a multidisciplinary field that draws on architecture, landscape architecture, urban planning, and other disciplines to create a cohesive and sustainable urban environment. The goal of urban design is to create a city that is livable, healthy, and beautiful. This involves creating a strong sense of place, promoting social interaction, and ensuring that the city is accessible to all. Urban design is a key component of urban planning and is essential for creating a high-quality urban environment.

## URBAN DESIGN ELEMENT

Urban design elements are the physical features of a city that contribute to its overall form and character. These elements include buildings, streets, parks, and public spaces. Urban design elements are the building blocks of a city and are essential for creating a high-quality urban environment. The goal of urban design is to create a city that is livable, healthy, and beautiful. This involves creating a strong sense of place, promoting social interaction, and ensuring that the city is accessible to all. Urban design is a key component of urban planning and is essential for creating a high-quality urban environment. Urban design elements are the physical features of a city that contribute to its overall form and character. These elements include buildings, streets, parks, and public spaces. Urban design elements are the building blocks of a city and are essential for creating a high-quality urban environment. The goal of urban design is to create a city that is livable, healthy, and beautiful. This involves creating a strong sense of place, promoting social interaction, and ensuring that the city is accessible to all. Urban design is a key component of urban planning and is essential for creating a high-quality urban environment.

The urban design element is a key component of urban planning and is essential for creating a high-quality urban environment. Urban design elements are the physical features of a city that contribute to its overall form and character. These elements include buildings, streets, parks, and public spaces. Urban design elements are the building blocks of a city and are essential for creating a high-quality urban environment. The goal of urban design is to create a city that is livable, healthy, and beautiful. This involves creating a strong sense of place, promoting social interaction, and ensuring that the city is accessible to all. Urban design is a key component of urban planning and is essential for creating a high-quality urban environment.





## INTRODUCTION

Urban design is a term that is used to describe the image and character of a city's environment. It applies to either one of two distinctly different scales. In its broadest sense, urban design encompasses all of the physical elements that make up the city and its natural setting. At this scale, urban design is an important factor in the comprehensive planning process because it deals with the visual qualities of the city as a whole; its relationship to the surrounding countryside and the relationships among its parts, to major transportation corridors, and to principle focal points. In the narrower sense, urban design deals with the development patterns of specific areas (e.g., business districts, industrial areas, particular residential neighborhoods), and consequently is less abstract. Both aspects of urban design are interrelated, and integral to the General Plan.

Although the State law does not require an Urban Design Element, few would contest the importance of recognizing and improving the city's visual qualities. Furthermore, there is a substantial interrelationship between the Urban Design Element and the Land Use, Open Space/Conservation, Circulation/Transportation, and Scenic Highways Elements. In effect, many of the major components of these four required elements are the critical factors that comprise the city's visual image, and the quality of this visual image is the essence of urban design. The location and physical design of land uses and structures tell much about the city. Very often the selection of locations and specific siting requirements are based on urban design consideration, such as preserving the openness of portions of the hillsides by requiring clustering where development will be concealed in wooded areas. Open spaces and the links between them both inside and outside of the urban area can become one of the primary identifying and cohesive visual factors in the city. The circulation pattern, especially the location and design of freeways and major streets, often is one of the most important components of an Urban Design Element. Not only do these arteries impart a strong statement in regard to the form of the city, but it is from the same routes that much of the rest of the city is viewed. Finally, the Scenic Highways Element can be considered a specialized refinement of the Urban Design Element. The former not only identifies the scenic roadways, but prescribes design standards for development within these corridors in order to preserve their scenic attributes.

The Urban Design Element is not a plan. Rather, it is a compendium of concepts and guidelines that can help to make the Santa Rosa planning area a more visually attractive place to live, as well as to make the various parts of the city more recognizable and their purposes readily understood. Although some recommendations are specific as to locations where the guideline can be applied, most are not localized. Specific application is possible only when the guidelines are utilized along with other pertinent inputs to make decisions on land use and circulation issues.



## BASIS FOR THE URBAN DESIGN ELEMENT

### Citizen Committee Goals

The Citizen Committee prepared a number of goals for use in constructing the Urban Design Element. The Committee's goals are summarized below.

1. To respond to the energy crisis and material shortages by giving greater emphasis to planning for pedestrians, bicyclists, and public transit and less emphasis to planning for the automobile.
2. To establish an historic preservation program. Historic preservation means more than preserving sites associated with patriots, statesmen and other heroes of past eras and/or just saving old buildings. Historic preservation promotes conserving buildings for their visual quality; putting them to practical use if appropriate; and establishing criteria for creating historic districts so that traditional design fabrics of the community are sustained.
3. To continue to develop downtown as the dominant business and commercial center of Santa Rosa. The design of the downtown area should continue to emphasize the importance of the shopper on foot; the Santa Rosa Center must be designed to link with the rest of downtown rather than to be a self-contained facility. Pedestrian and bikeway linkages, imaginative use of pavements, landscaping, street furniture and graphics should be used to create continuity throughout the area. The scale of new structures should respond to the human scale rather than to intimidate.
4. To protect the natural character of ridges, hillsides, open spaces and natural waterways, and to protect and preserve natural views and vistas.
5. To maximize the diversified appearance of subdivisions by design review which would include street layout and landscaping of streets and common areas.
6. To develop and adopt a citywide street tree planting plan and generally to incorporate the street design and landscaping heritage into all areas of Santa Rosa including industrial and commercial areas.
7. To provide for special design consideration along freeways and major vehicular corridors in order to improve the visual character of the City's major entrances and exits.
8. While recognizing the visual dominance of downtown, to provide for the reasonable availability of goods and services by the appropriate location of commercial facilities throughout the planning area.



9. To emphasize Santa Rosa as a unique city in which to live, distinct in terms of location, but also in terms of other amenities that make life pleasurable. These may include, but not be limited to urban open spaces, public art and sculpture and other cultural assets.

### Visual Survey And Analysis

In order to develop policies and guidelines relating to the physical form and appearance of the Santa Rosa planning area, a visual survey was conducted. A record of existing conditions was the first step in analyzing the area's major visual features to determine how they affect form and image. Once this determination was made, and the visual assets and liabilities assessed, policies were formulated to reinforce the positive features, strengthen those that are weak, and reverse those which are visually deficient or harmful. This procedure then led to formulation of design guidelines and implementation programs.

### Existing Visual Form

The results of the survey and analysis are indicated on the Existing Visual Form map. Major observations and conclusions also are noted. Although urban design encompasses many facets of city form, it is based primarily on aesthetic judgments and, therefore, is subjective in nature. Parts of the city that may be visually pleasing to one person may be of no concern or even be objectionable to another. However, a start must be made in order to arrive at an eventual consensus regarding those features which should be retained and strengthened and those that should be changed. Guidelines which are developed to implement urban design policies should be sufficiently flexible to allow for a diversity of aesthetic opinions and solutions.

The Existing Visual Form map deals only with the major components of the city's visual form, including the following:

Open Space. These are open areas, both publicly and privately owned, and include major portions of both the hillsides and flat farmlands, as well as golf courses and larger parks.

Hillsides. Although hillsides were not specifically delineated, the underlying topographic base calls attention to this predominant feature of the planning area.

Freeways And Major Roads. These are the predominant trafficways which are heavily travelled and have been a major force in determining the present form of Santa Rosa.

Urban Entrances. These are the approximate points of entry into the urban area, although in some places the transition from rural land to urban development is difficult to define.













Urban Edge. These are natural or man-made features which clearly define the limits of urbanization or which provide strong distinction between city and country.

Visual Barrier. These features, such as major streams, steep hills, and elevated freeways, which visually separate neighborhoods and districts. Visual barriers are not necessarily physical barriers but psychologically may appear to restrict access.

Landmarks. Major landmarks are natural or man-made features which can be seen from a distance and thus aid in identifying an area or aid in orientation. Minor landmarks provide local orientation but are not seen from a distance.

## URBAN DESIGN ELEMENT OBJECTIVES AND POLICIES

Key objectives and policies which are the basis of the Urban Design Guidelines are as follows:

### OBJECTIVE 1

RETAIN AND STRENGTHEN SANTA ROSA'S FORM AND IMAGE, EMPHASIZING THE CITY'S PARTICULAR "SENSE OF PLACE" AND THE VISUAL RELATIONSHIPS AMONG ITS MAJOR DISTRICTS AND OPEN SPACES.

#### Policy 1

Protect the natural setting of Santa Rosa and minimize the visual intrusions of roadways and structures on hillsides and in other prominent natural areas.

#### Policy 2

Reinforce the image of Santa Rosa as a city which is shaped largely by and integrated with its natural surroundings, particularly in areas where natural features help to define the urban edge.

#### Policy 3

Retain existing cultivated agricultural pastoral lands insofar as possible in order to discourage urban sprawl and to strengthen the visual distinction between city and countryside.

#### Policy 4

Encourage compact development, screened by trees where possible, in hillside areas where development is allowed to occur.

#### Policy 5

Protect important views to and from Santa Rosa, and to natural landmarks such as Taylor Mountain and Bennett Mountain.



#### Policy 6

Relate building design, height, and placement to terrain and other natural features.

#### Policy 7

Encourage the design of buildings that are in scale with adjacent development and which harmonize with the character of the district. Discourage project designs that create man-made barriers, such as on-grade and elevated freeways.

#### Policy 8

Increase the visibility of major destinations from arterial roads and establish focal points for orientation.

#### Policy 9

Strengthen visual distinctions among districts whose functions and locations are identifiable, but assure that the various districts are visually inter-related.

### OBJECTIVE 2

MAINTAIN VISUAL AND FUNCTIONAL LINKAGES BETWEEN MAJOR CITY OPEN SPACES.

#### Policy 1

Provide a system of recreational trails throughout the planning area, including the use of trails along the creeks wherever possible.

#### Policy 2

Provide a system of scenic roadways that will offer a pleasant trip through and around the planning area.

### OBJECTIVE 3

MAINTAIN AND IMPROVE THE OVERALL APPEARANCE OF SANTA ROSA.

#### Policy 1

Discourage visual clutter along major roads, such as that created by a proliferation of signs, billboards, and eccentrically designed or garishly-painted buildings.

#### Policy 2

Avoid discontinuous development patterns, especially along the U.S. 101 freeway.



### Policy 3

Discourage the visual monotony and sense of disruption along major streets created by back-on treatment, which utilizes continuous fencing with little or no landscaping.

### Policy 4

Require substantial landscaping along major streets and waterways as a condition of subdivision approval.

### Policy 5

Continue the City's program of utility line undergrounding.

### Policy 6

Encourage the preservation of historically and architecturally significant structures.

### Policy 7

Prescribe comprehensive design principles and standards for public and private projects.

## OBJECTIVE 4

CREATE A HIGHLY VISIBLE CIRCULATION SYSTEM WHEREBY DESIGN AND LANDSCAPING IDENTIFY THE ROAD'S FUNCTION AND IMPORTANCE, AND DESTINATIONS ARE APPARENT.

### Policy 1

Develop a heirarchical street system, relating street width, spatial configuration, street lighting, street furniture, and landscaping to the functional and visual importance of the street.

### Policy 2

Designate specific street corridors which are to receive special landscaping treatment, in order to emphasize the important role of such corridor. The Stony Point/Marlow "spine" and Guerneville Road on the west side, and Highway 12 on the east side are prime examples of corridors which should have planted medians and supporting landscaping.

### Policy 3

Assure that street widenings and realignments are sensitive to the character of the street and to the quality of adjacent development, and are related to the topography and natural features of the area.



#### Policy 4

Reduce conflicts between vehicular and pedestrian circulation in pedestrian-oriented residential and business districts.

#### OBJECTIVE 5

STRENGTHEN DOWNTOWN AS THE VISUAL AS WELL AS THE FUNCTIONAL FOCUS OF SANTA ROSA.

##### Policy 1

Beautify downtown to make it visually exciting and stimulating for the shopper.

##### Policy 2

Retain and strengthen Old Courthouse Square as the major downtown focal and gathering point.

##### Policy 3

Assure that downtown is designed primarily for the convenience of the pedestrian, rather than for the motorist.

##### Policy 4

Assure that Santa Rosa Center and Railroad Square are visually and functionally linked with the rest of downtown.

#### OBJECTIVE 6

ASSURE THAT RESIDENTIAL NEIGHBORHOODS ARE SAFE, HEALTHFUL, AND ATTRACTIVE PLACES TO LIVE.

##### Policy 1

Assure that the neighborhood streets and parks are attractively landscaped.

##### Policy 2

Encourage diversity in site planning of large planned community developments.

##### Policy 3

Encourage neighborhood improvement and rehabilitation of older structures to preserve a sense of the city's history, and to provide for a diversity of districts and architectural styles.



## URBAN DESIGN GUIDELINES

The urban design guidelines which follow should offer opportunities to create diversity in the visual, physical, social, and functional components of the city, and yet maintain a sense of harmony so that Santa Rosa is recognized as a distinctive place. It is important to recognize that regardless of how pure the design of the individual components may be, excessive diversity can result in a disconcerting and possibly chaotic city image. The guidelines also should reflect the desires of most local residents. In spite of its growing population and spreading urbanization, many residents like to think of Santa Rosa as a small town where natural conditions and other rural qualities prevail. The guidelines should help to strengthen this self-image and heritage.

### Guideline 1: Form and Image

The visual form of a city is comprised of the components we can see, whether they be natural or man-made. This is the physical reality. Where the visual elements are strong, they give the city as a whole a distinct identity or "sense of place", an image in the human mind that says "this is Santa Rosa". The most evident aspect of the city's overall form is that it is set on the floor of a natural amphitheater partly surrounded by hills that create distinct edges. The Sonoma Mountains, forming a series of ridges from the northwest to the southeast, create a distinctive natural setting for the city. The eastern pastoral valleys and the West Plains are less striking, but still are important elements of Santa Rosa's visual setting. Together they provide a geographic identity for the community.

One of the methods which can be used to maintain the form and image of Santa Rosa is to control development at the edges of the planning area, keeping the city distinct from its neighbors to the north and south.

Entering the Planning Area From the South - U.S. 101 and Santa Rosa Avenue: The major vehicular approach to Santa Rosa is along U.S. 101 from the south. Continuation of the present scattered development pattern along the highway must cease if Santa Rosa is to remain visually separate from Rohnert Park. A permanent "greenbelt" of open land should be preserved in this area. Present development along the highway should be screened by dense landscaping south of Todd Road, and new development should be minimized. Dense landscaping also should be provided within the planning area as far north as Hearn Avenue, but additional development on the vacant parcels between existing uses would be appropriate along the freeway provided that it were set back and effectively screened. Beginning just south of Hearn Avenue and proceeding northward, the density of landscaping should decrease and the intensity of development should increase, creating a visual transition between rural and urban areas.



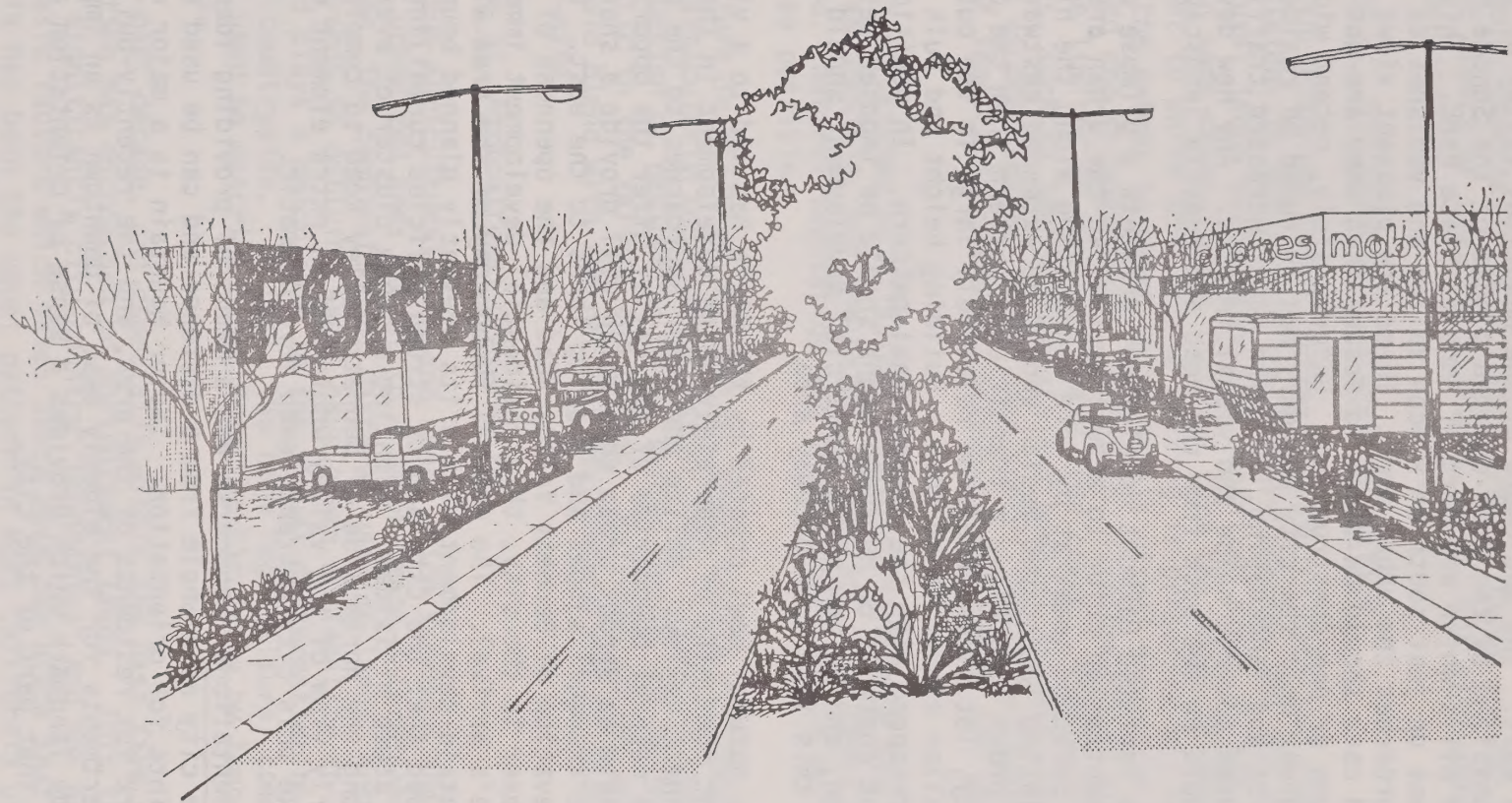
The most visually unappealing approach to Santa Rosa is on Santa Rosa Avenue which is lined with a variety of land uses, but primarily a conglomeration of automobile sales and service establishments on several blocks south of the intersection with Highway 12. The major problem is the chaotic image created by unrelated building forms, overhead wires, blatant signs, and the lack of landscaping. The major land use along the remainder of Santa Rosa Avenue south of Hearn Avenue is motels and mobile home parks and sales outlets. Some of the mobile home parks are well landscaped and have a pleasant appearance, but the overall impression is uneven. While Santa Rosa Avenue certainly needs visual improvement, the uses located there are not inappropriate. The initial steps that can be taken are to plant street trees in the automobile row area; to enforce existing sign regulations, including the phasing out of non-conforming signs; and to reconstruct sidewalks. On-site landscaping should be required in the mobile home area, and materials and colors of sales offices and awnings visible from the street should be subject to careful design review. Eventually, a landscaped median strip should be constructed along the entire length of Santa Rosa Avenue south from Highway 12.

In order to decrease the importance of Santa Rosa Avenue as an entry, there should be new signing on U.S. 101 so that the freeway remains the major route from the south. At present, the Santa Rosa Avenue sign leads newcomers in the area to believe that this is the main route into Santa Rosa, when in fact the newcomer still is more than four miles south of downtown.

Entering the Planning Area From the West - State Highway 12 and Guerneville Road: Both of these roads should retain their agricultural quality west of Fulton Road, with a gradual increase in intensity of development from Fulton Road eastward. The concept of a transitional or "feathered" development pattern west of the freeway should prevail. The term "feathered" is used to describe a land use pattern whereby parcel sizes gradually would increase from Stony Point Road and Marlow Road westward towards Fulton Road; and agricultural-sized parcels would prevail beyond it. This would blend the outskirts of the city into the rural ring that surrounds it. With this type of design, the traveller would see a gradual change in land use when entering the city. There would a transition from open grazing and crop lands to small farms or ranchettes, to residential neighborhoods, and finally to intense urban development.

Entering the Planning Area From the North - U.S. 101: The "feathered" approach advocated for Highway 12 and Guerneville Road also would be appropriate on the freeway approach from the north, although the decrease in parcel size and increase in development densities would occur less gradually. Dense landscaping along the freeway frontage would help to reinforce a feeling of separation.





A landscaped median strip should be constructed along the entire length of Santa Rosa Avenue from Highway 12.



Entering the Planning Area From the East - State Highway 12 and Bennett Valley Road: State Highway 12, the Sonoma Highway, is the major entrance road to the Planning Area for drivers entering from the east. The enclosure of the beautiful Valley of the Moon is emphasized by the tree-covered slopes of the Sonoma Mountains and the hills which are part of Annapolis State Park. This enclosure opens up just south of Rincon Valley and vanishes as the traveller approaches the urban area. There are pleasant views of the city, and care should be taken to assure that they are not blocked by signs or new construction. Unfortunately, recent widening of the highway near the city boundary has intruded on residential front yards and landscaping, in which case increased traffic volumes have caused adverse noise and visual impacts. Any new development should be set back from the road and heavily landscaped.

The isolated Oakmont development presents a glimpse of premature urbanization prior to actual arrival in the urban area. This could be softened somewhat by more landscaping along the highway. The existing landscaped median should be extended eastward past Oakmont. In order to achieve a transitional pattern from the countryside to city, lot sizes should be relatively large in the outlying area and smaller closer in to town. Building height and bulk also should correspond with the transitional pattern. In addition, more stringent controls on business signs should be imposed west of Calistoga Road, and no new strip commercial development should be permitted in this important gateway area.

The natural bowl created by the hills has led to a visually prominent community of moderately-dense development in the well-defined Bennett Valley. Unlike the other approaches to the planning area, the natural boundaries of the valley offer the opportunity to create an abrupt urban edge which will provide a sharp contrast to the tranquil slopes and grazing lands to the east. Due to the elevation of Bennett Valley Road and the openness of the landscape closer to the city, this residential development immediately signals one's arrival. The natural topography of the area will help to contain development within its presently planned boundaries, provided that the City adopts strong policies curtailing development on steep hillsides. Planting a dense cluster of evergreen trees along the north side of Bennett Valley Road to completely block an early view of the valley would add an extra element of surprise and make this city entrance even more dramatic.

Orientation: Landmarks are a means of providing identification for the city as a whole from a distance and can be used as reference points for orientation. Taylor Mountain is a major natural landmark for residents of the area, and the recently-built Silvercrest Apartments for the elderly east of downtown is an important man-made landmark which provides a sense of orientation and direction in that part of the city.

Although the low profile of downtown is consistent with its present role in the region, it would not be inappropriate to develop some



high-rise (10-15 stories) buildings that would be visible from the freeway. Such structures should be slender towers and should not significantly block views to other parts of the city.

Views should be protected as much as possible from intrusion by new development, especially in hillside areas. Views are not only an important aspect of the city's visual image, but also provide driver orientation.

#### Guideline 2: Hillsides and Natural Vegetation

Much of the Planning Area's character results from the tree-covered open hillsides in and around the eastern portion and the open agricultural lands surrounding the urbanized areas on the south and west. In some cases, these features form the edges of the city. The extent to which this scenic setting is preserved may well determine the extent to which Santa Rosa's visual character is maintained and strengthened. Therefore, development of hillsides should be limited to areas of heavy tree cover. Highly visible hillsides, such as Taylor Mountain and Annadel Heights, should be retained as open space. Major open spaces should be linked by a system of landscaped roadways, bikeways, and hiking and equestrian trails.

Roads and structures on hillsides should conform with the terrain as much as possible, and the extent of cut and fill banks should be minimized. Natural vegetation and ground cover should be preserved as much as possible.

Architecture in hillside residential areas should fit local conditions, particularly topography, rather than relying on standard plans. Design of residences on hillsides should not be the same as those built in the valleys and plains. Building styles and materials should blend with the natural environment and be compatible with the site.

#### Guideline 3: Agricultural Preservation

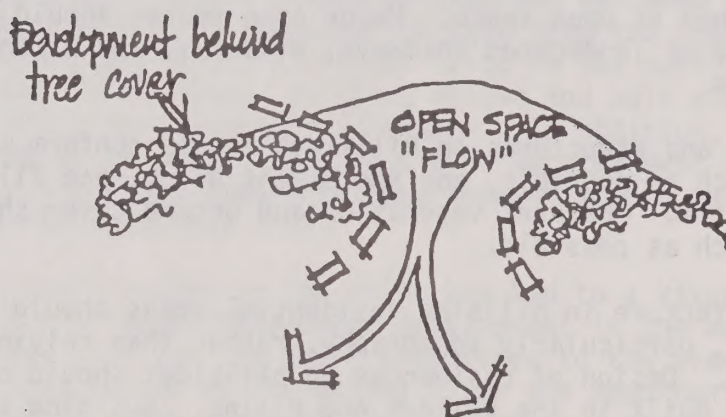
The various agricultural uses and areas which surround the community's urbanized area amount to a major image-determinant of Santa Rosa. The combination of pastoral grazing lands, orchards, and vineyards in outlying areas have given an identity to the urban area, and plays a major role in the visual differentiation between city and countryside. In fact, the term "agricultural community" is often used to describe Santa Rosa, particularly by long-time residents.

Over the past decade, and especially within the past five years, urbanization has encroached on agricultural lands. This trend has weakened significantly city-country "boundaries" and has eroded one of the basic factors which makes Santa Rosa the place that it is. While this has been the usual pattern in most California urban areas, there still is considerable supply of non-agricultural land available for development within the confines of the present Santa Rosa urbanized area. Unfortunately, high land values and proportionately high taxes on the periphery often make farming uneconomical,

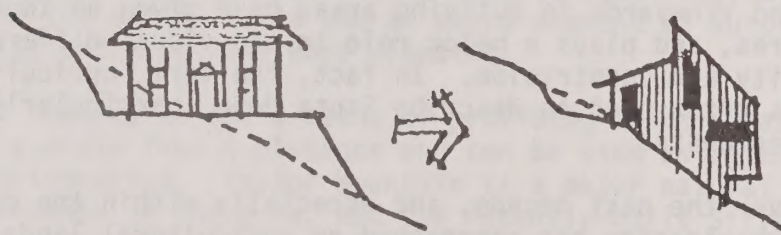




Views should be protected as much as possible from intrusion by new development, especially in hillside areas.



Development of hillsides should be limited to areas of heavy tree cover.



Building styles should be compatible with the site and fit local conditions, particularly topography.



and proximity to urban development increases the problems caused by pilferage and nuisances. While it is unrealistic to believe that all existing agricultural lands can or should be preserved in their present use, efforts should be made to maximize the preservation of close-in agriculture not only to help maintain the urban edge, but also to preserve the essential character of the planning area. Accordingly, large parcels of vacant land within urban areas should be developed before agricultural lands are permitted to be subdivided.

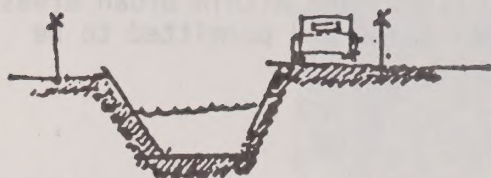
#### Guideline 4: Creeks and Water Bodies

A network of creeks contributes to the natural setting and form of the Santa Rosa Planning Area. However, opportunities for utilizing the creeks as a major design resource for the most part have not been realized. Except for Santa Rosa Creek along Fourth Street, and at a few points along Matanzas Creek, the waterways are physically and visually cut off from the majority of residents. Unimaginative land development plans have ignored the creeks, and utilitarian improvements such as channelization have obliterated or brutalized them at many points. Similarly, some reservoirs and other bodies of water have been ignored, and access is limited or non-existent. Utilization of these resources should be evaluated in terms of open space needs and in the light of recreation and park policies and programs. Recognition of these natural assets and skillful incorporation of them into development plans would enhance Santa Rosa's image and character. Accordingly, channelization of creeks with a typical concrete trapezoidal section should be avoided. Where such channelization already has occurred, high priority should be given to restoring creek area environments to a landscaped condition, particularly Santa Rosa Creek west of Santa Rosa Avenue. Sections should be designed to allow for flood volumes in winter but present a visually narrower, more natural prospect in summer. Where streets cross creeks or other streams, the visual continuity of the creek should be strong, and the effect should be that of bridging the creek. Large scale open areas should occur at the intersection of creeks and streets wherever possible.

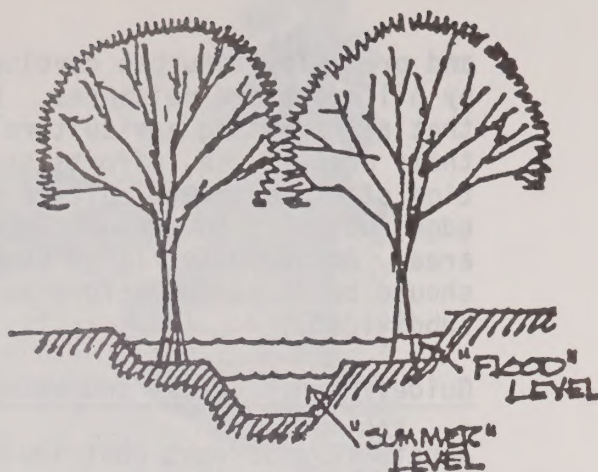
Bicycle, hiking, and equestrian trails should be developed along channel banks wherever possible. Of particular importance will be trail connections between parks to help establish a continuous open space network. However, potential problems relating to the privacy and security of property owners abutting creeks must be resolved. One possible solution is securing access to trail rights-of-way now held by public agencies, such as the Sonoma County Water Agency.

Creeks should not be hidden from public view, and the layout of streets and trails should purposefully bring the observer into direct contact with the creek at certain points. Vistas can be opened up and creeks given visual exposure.





Channelization of creeks with a typical concrete trapezoidal section should be avoided.



Sections should be designed to allow for winter flood, but appear more natural in summer.



Large trees should be planted along creeks to strengthen the visual prominence of the waterways.



No freeway or other road should span the lake in Spring Lake Park. The tranquility of Spring Lake as a setting of open hills and grasslands contrasts sharply with the more parklike setting of Lake Ralphine in Howarth Park. Spring Lake provides opportunities for recreational activities not available at the much smaller Lake Ralphine. A road bridging the lake would desecrate the visual setting and would destroy its present rural quality.

#### Guideline 5: Trafficways

Trafficways, whether they be freeways, expressways, arterials, or collector streets, comprise one of the most important elements of the city's visual form. These roads, as well as ancillary facilities such as parking lots, consume a large percentage of a city's land supply.

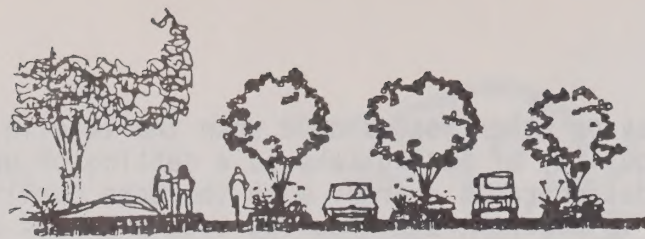
The number of lanes, spatial configuration, landscaping and lighting all impart a meaning to the user of a street. They help to define its purpose and convey whether it is a through-route or a local street. It is from the trafficways network that the city primarily is viewed by both residents and visitors.

Street Design: The Circulation/Transportation Element prescribes right-of-way widths for the different classifications of streets, but exceptions to these standards should be considered in places where widening or realignment would be detrimental to the character of the area. In fact, where street "improvements" would be so detrimental as to severely disrupt neighborhood character, alternate routes, or even tolerating congestion, should be considered as possible alternatives. Otherwise widening should be minimized in such situations. Where street widening is found to be absolutely necessary but would encroach on existing lots, variations in zoning requirements should be permitted to allow high walls, fences, hedges, or other devices necessary to assure privacy and reduce the noise impact created by increased traffic.

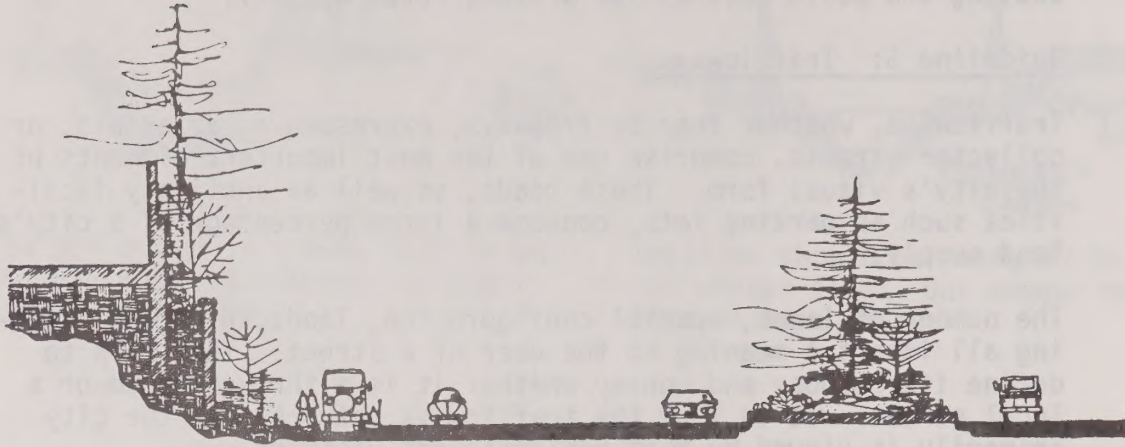
Streets should be in scale with their intended use and with adjacent development. Streets in some of Santa Rosa's newer residential areas are wider than necessary to accommodate traffic volumes and tend to divide rather than unify neighborhoods. On such streets, exclusive bike lanes can be provided or landscaped medians constructed in the excess space.

The Circulation/Transportation Element prescribes a hierarchy of trafficways, including freeways, expressways, major streets, collector streets, and rural roads. In order to provide better orientation and to visually identify streets, design techniques to differentiate among various types should be employed. Distinctive landscaping is an effective technique. For example, massive screen plantings could be used along freeways, a combination of screen plantings and randomly spaced evergreen trees along expressways, regularly spaced upright trees that do not interfere with drivers' vision on major streets, shade and canopy trees on residential streets, and low and lacy trees on pedestrian streets such





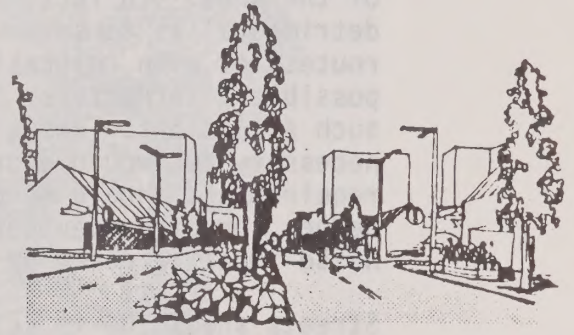
Streets should be in scale with their intended use and with adjacent development.



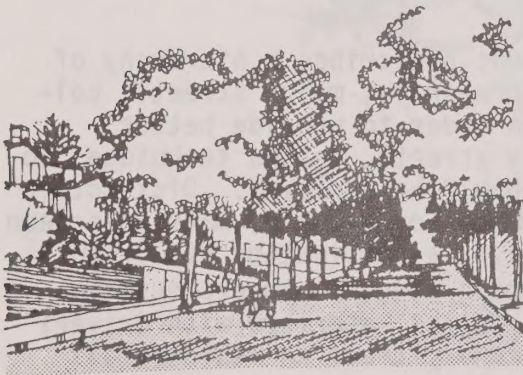
The image of the freeway and enjoyment of the drive can be improved by creating greater visual interest by planting flowering groundcover and shrubs along the median and shoulders.



Massive screen plantings can be used along freeways.



Use a combination of screen plantings and randomly spaced evergreen trees along expressways.



Shade and canopy trees should be used on residential streets.



Regularly spaced upright trees that do not interfere with driver's vision should be used on major streets.



as in downtown. Planted median strips along selected major streets can create distinctive parkways. Rather than shrubs, some of the median strips could be planted with the same varieties of trees as used along the sidewalks.

Adjacent Land Uses: There should be more landscaping along U.S. 101 as a means of masking scattered and unsightly land uses along the corridor, especially in the area south of downtown. In other areas where the view is attractive or where the view can provide a means of orientation, such as the prospect of downtown, landscaping should not block the view.

Unsightly uses should be screened along expressways and major streets by use of landscaping elements and specially designed walls and fences. However, this technique should not be employed as a method for concealing the deficiencies of new development unless there is no practical alternative.

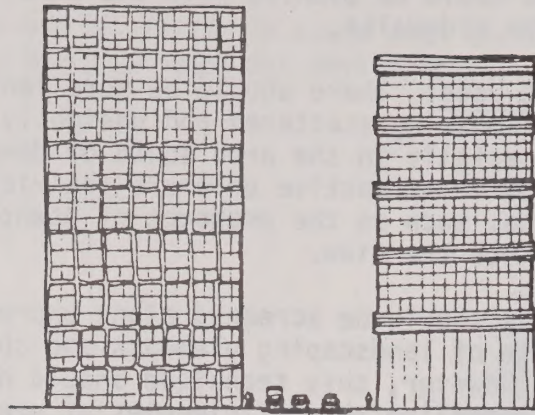
Buildings should be designed taking account of street width. For example, tall bulky buildings along narrow streets appear even bulkier than they are. On the other hand, taller buildings around a square or plaza can help to define the urban open space, providing a greater sense of enclosure for people using the space.

Parking Lots: In new developments, parking lots generally should not be permitted to front on the street because they disrupt the continuity of the street space and the sense of enclosure. They also create an unpleasant pedestrian environment. Parking should be located at the rear of buildings with ingress and egress clearly marked, and the lot itself should be landscaped. Parking in front of buildings may be in order where commercial uses adjoin residential development. Where parking lots are located adjacent to dwellings, screening should be required and access points should not be permitted on residential streets.

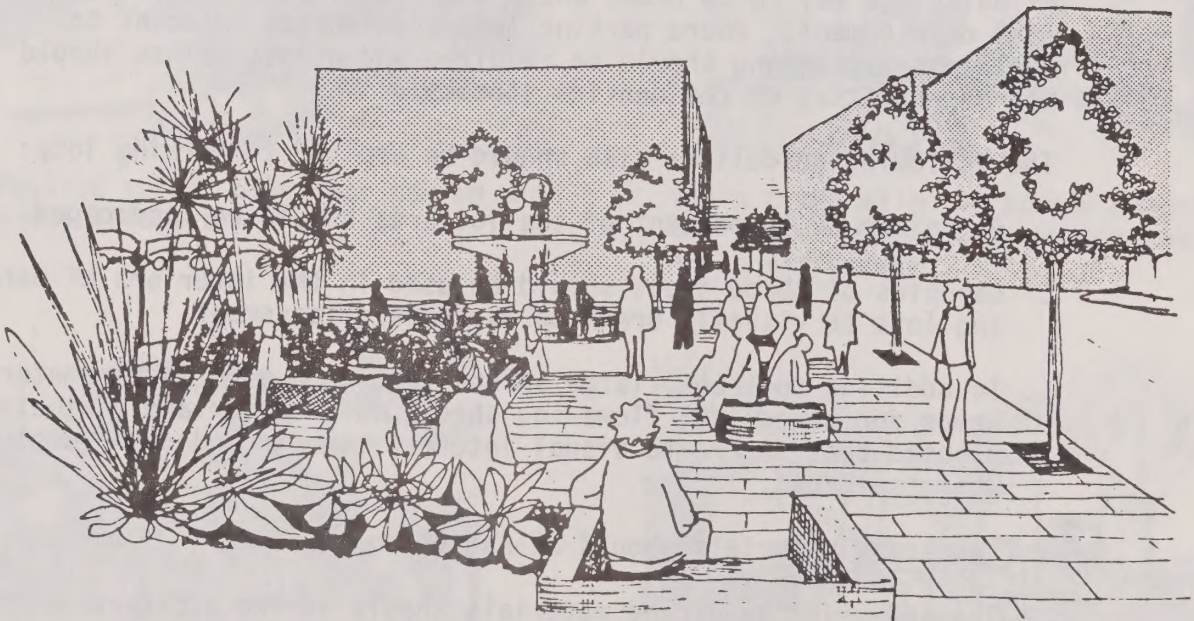
The following guidelines also should be applied to parking lots:

- . A minimum of 10 percent of the lot area should be landscaped.
- . Canopies of shade trees should be used in the interiors of parking lots to visually break up expanses of pavement.
- . In addition to trees, large shrubs should be used in perimeter areas for screening; flowering shrubs in interior and perimeter planted beds to create visual interest; and ground cover employed where suitable.
- . Landscape materials should be native to the area.
- . The choice of landscape materials should strike a balance between low maintenance, hardy plants and those which are attractive visually but more difficult to maintain.



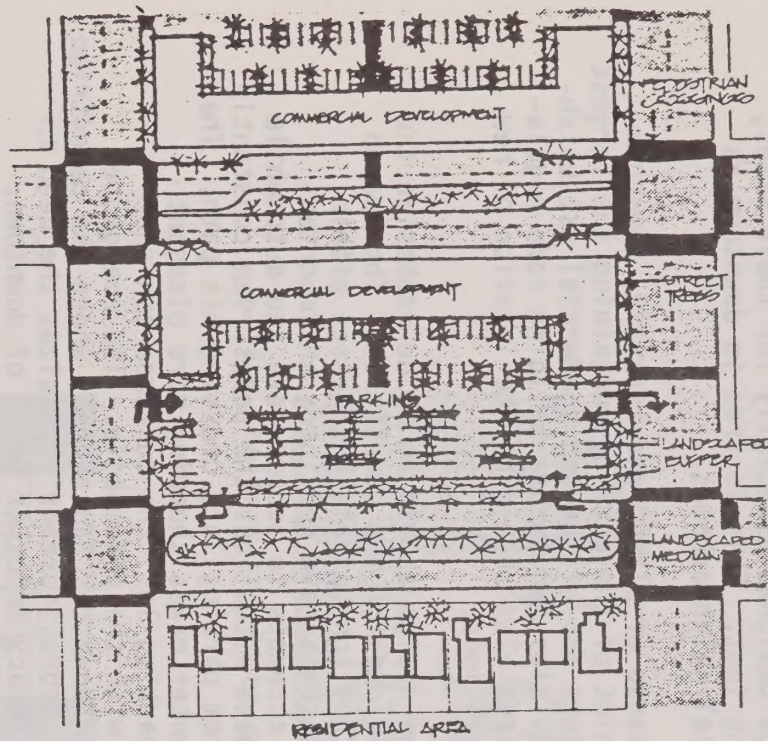


Tall, bulky buildings on narrow streets appear out of scale.



In contrast, taller buildings around a square or plaza can help to define the urban open space, providing a greater sense of enclosure for people using the space.





Parking should be located at the rear of buildings.



Parking for commercial facilities should be separated from residential areas.



- . A variety of landscape design treatments should be encouraged.

#### Guideline 6: Downtown

Just as important as the identity of the city as a whole is the more localized image or "sense of place" of particular districts and activity centers. This narrower-scale view is less abstract than the total image of the city and can be dealt with more specifically in terms of land uses, buildings, streets, and open spaces. Various districts have distinctive characteristics which set them apart and make them recognizable. In the older areas of Santa Rosa, the "sense of place" is achieved mainly by visual forms that express the history and geography of the area. If these districts are to remain distinctive, their identity must be protected by both private efforts and public regulations. Unfortunately, as older buildings give way to new; as automobiles dominate pedestrians; and as look-alike commercial buildings, homes, and franchise architecture replace distinctive buildings designed especially for their sites, the "sense of place" is being lost. This is true in downtown as well as in certain residential neighborhoods.

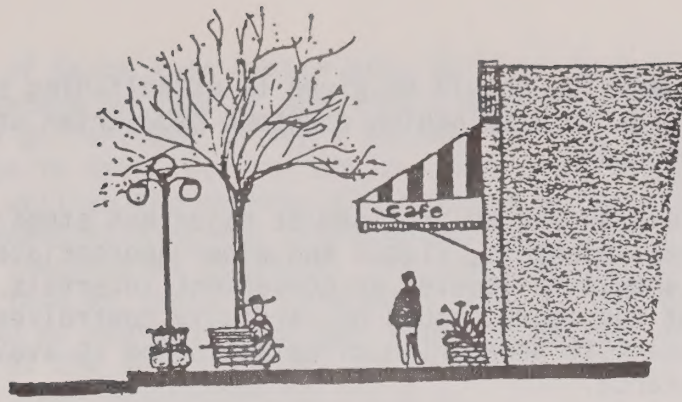
In order to reinforce its "sense of place" and identify, downtown should be the major focal point of the area by containing the largest concentration of tall buildings and office and commercial establishments. If seismic safety policies and future building code regulations permit, the downtown area also should be the location of new high-rise (10-15 stories) buildings.

A major objective of downtown design should be to de-emphasize the automobile and improve conditions for the pedestrian. The reason downtowns exist is because they concentrate businesses within walking distance. Where downtowns have declined, an important reason has been that clumsy attempts to accommodate the automobile have been disruptive. In these situations the pedestrian constantly must be on guard for cars from parking lots crossing his path. The typical suburban shopping center makes shopping more pleasant because once away from the parking lot, the customer can shop without competing for space with the automobile. The emergence of a major shopping center in downtown Santa Rosa, where the pedestrian will be king once inside its doors, further emphasizes the need to restore the pedestrian's supremacy in other parts of downtown.

Some design guidelines applicable to the downtown area are as follows:

- . Streets should be landscaped with more trees. Trees which are selected should be open rather than dense to allow sunlight to filter through and should be in scale with the pedestrian character of the district.
- . Retractable awnings should be provided on the fronts of buildings to give protection from the rain during the winter and the sun during the summer.

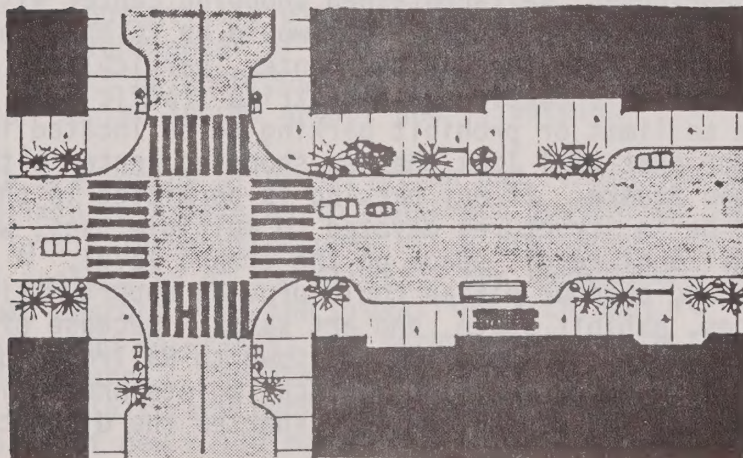




Trees that are selected should allow sunlight to filter through and should be in scale with the pedestrian character of the district. Retractable awnings should also be provided.



Bus shelters should be provided at major bus stops.



Pedestrian crossings should be clearly marked, and wherever possible streets should be narrowed at intersections.



- . Consideration should be given to establishing special lighting standards to distinguish downtown pedestrian streets from others in the area.
- . Shelters should be provided at major bus stops: Bicycle racks, benches, planters, kiosks and other appropriate street furniture should be located at convenient intervals. Placement of street furniture should be carefully controlled to avoid interference with pedestrian circulation and to avoid a cluttered appearance.
- . The sidewalks along Fourth Street should be widened to give maximum comfort and safety to the pedestrian, also providing the necessary room for benches and transit shelters. Wherever possible, streets also should be narrowed at intersections by eliminating one parking space on each side, thus minimizing the street width pedestrians must cross.
- . Intersections should be clearly marked. Special paving materials, such as brick, or the use of color could emphasize the pedestrian crossing.
- . Parking generally should be located on the edge of the downtown area, rather than within it. Present landscaping requirements should be increased.

Another paramount consideration in the design of downtown should be the integration of new construction with existing development to maintain a cohesive district. Because of the large scale and "megastructure" design of the Santa Rosa Center project, there is a possibility that downtown could be visually and physically divided into two sub-districts unless the old and the new are well integrated. The benefits of enclosed malls to both retailers and shoppers have been demonstrated throughout the country, and there is no reason why these benefits should not be transplanted into a downtown situation. There are several possible methods of integrating a traditionally inward-oriented, self-contained shopping center with the present outward-oriented downtown. One would be to open the malls into existing streets that pass through the center, particularly Fourth Street, making possible continuous pedestrian traffic flow. Another possibility may be to limit or prohibit parking to be located in the east-west corridor that will link the new shopping center with downtown and Railroad Square. If any parking is permitted in this corridor, it should be in structures devoted to multiple uses, with malls, plazas, or additional retail space on the ground level. A combination of indoor and outdoor plazas could provide opportunities for cafe terraces, exhibit space, and art sales. Because of the length of the east-west corridor from downtown to Railroad Square, these plazas should be made to function as focal points and activity centers so as to visually and psychologically shorten the distance.



Integration of Santa Rosa Center with Railroad Square will be difficult to achieve because of the visual barrier of the elevated freeway, the differences in scale between the two areas, and the abrupt change in architectural design. One possibility, however, would be to utilize the freeway structure as a "gateway" to Railroad Square by de-emphasizing its transportation function. Using landscaping and imaginative graphics, the concrete barrier could be transformed into an inviting entryway. East of the gateway, the design should be contemporary, but once the pedestrian emerged from the shadows of the passage under the freeway, the old town atmosphere of Railroad Square should prevail.

#### Guideline 7: Preservation and Rehabilitation of Structures

A major source of cultural richness and community character and charm rests in Santa Rosa's older structures. Although preservation of historically and architecturally important buildings and sites is essential, the retention of less significant but still noteworthy buildings and grounds is fundamental to maintaining interest and variety throughout the community, as well as to preserve the identity of individual districts. In fact, preservation of groups of older structures that can be made useable may have an even greater impact than just preserving the architecturally significant buildings.

The older neighborhoods close to downtown not only contrast with newer residential districts but also offer a variety of housing opportunities. Many of the older areas which are appropriate for preservation are zoned for higher-density residential or commercial uses, which if not handled properly, are incompatible with the present low-density character of the district. These areas are susceptible to economic pressures for change generated in part by existing codes and ordinances which encourage razing of old buildings and replacing them with new ones.

Distinctive or homogeneous residential areas, which may not necessarily have historical or architectural value but contain sound structures and potentially pleasing living environments, should be preserved. The character of these areas is important in providing visually distinct neighborhoods as well as offering housing opportunities for varied income groups and lifestyles.

Areas which are worthy of preservation and rehabilitation should be zoned to eliminate pressures to construct duplex and fourplex units on narrow lots. These structures often are incongruous and disrupt the visual continuity of the street. New development which does occur should conform with the prevailing architecture in terms of height, bulk, and materials, and setbacks should be compatible with existing structures. Duplication of existing building lines, construction materials, and roof profiles will help to reduce the visual impact of new buildings.



## Guideline 8: Neighborhood Design and Livability

Historically, Santa Rosa's residential neighborhoods grew in small increments through the efforts of individual builders, for example in Grace Tract, Proctor Terrace, and Lower Hidden Valley. However, the recent trend is toward larger-scale subdivisions developed by single builders. The collective visual impact of many residences in a subdivision may be extremely significant. While the appearance of individual structures may not be important, the subdivision street layout, landscaping, siting of structures, and building forms, materials, and colors can make the difference between a development being a visual asset or a liability. A subdivision not only should be able to stand by itself as a visual entity, but also should relate well with surrounding neighborhoods, the natural setting, and the overall form of the city.

East of the freeway, the continued growth of subdivisions has been visually contained by the hillsides in many areas. These natural separators have helped to maintain the small-town appearance. West of the freeway, where the land is flat, this is not the case. The various subdivisions are beginning to merge into one another, and the image of a sprawling city is beginning to take form.

Many old neighborhoods, including those built in the 1950's, illustrate how much more important subdivision layout and landscaping can be than the design of individual homes. Some subdivisions have developed a special charm as landscaping has matured. However, in general, the city's neighborhoods have street trees that are too small for the scale of the streets and create insufficient shade in the warm summers. The planting of street trees is required, but the choice of species is left to the discretion of the developer.

New Neighborhoods: In response to the widespread criticism of the look-alike houses in subdivisions of the 1950's and '60's, some of the new subdivisions are going to the opposite extreme by offering too many variations in housing styles and materials. While a reasonable degree of diversity should be encouraged, it is important to create harmonious relationships among the structures in a subdivision, as well as between adjacent subdivisions. This related form, along with carefully chosen landscaping elements, will provide distinctive but harmonious neighborhoods. Repetition of a single building element or material, such as tile or shake roofs, also can be a successful means of tying together diverse building styles within a single development.

Even in standard subdivisions, it is possible to create diversity in open space as well as in housing design. In addition to the variable lot size provision of the Zoning Ordinance, variations could be permitted in setbacks, lot coverage, and siting of structures. This would provide a more interesting streetscape as well as offering residents a diversity of housing styles and site layouts.



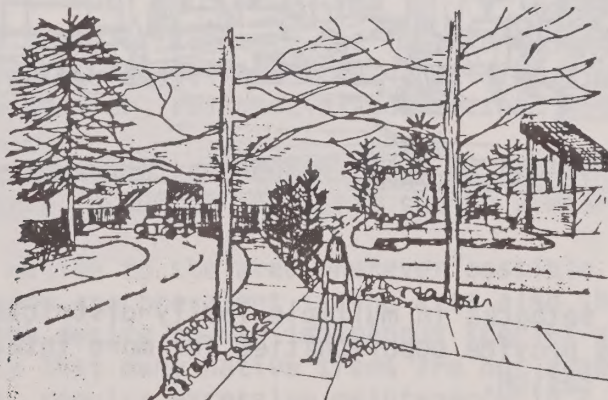
A critical design issue is the future of the West Plains. The new subdivisions, many of which are located at random and are surrounded by large vacant tracts or grazing lands, are no different architecturally than their counterparts east of the freeway. If this type of development is permitted to continue, some of the identity and "sense of place" problems in evidence east of the freeway will be magnified many times in the west. A solution that has been advocated in recent years is the planned unit development (PUD), whereby developers assemble large parcels and some of the zoning requirements are relaxed to offer opportunities to provide diversity in housing types and styles, as well as in site planning. Although this approach has been successful in some cases, the majority of developers have continued to build traditional "cookie-cutter subdivisions". Nevertheless, PUD's could help to solve the design problems of the West Plains provided that new standards are developed. Some examples are:

- . To continue to limit overall residential densities as presently prescribed by the Zoning Ordinance for planned unit developments, but to specifically require a mix of housing types such as garden apartments, townhouses, patio homes, and detached residences.
- . To require provision of common open space and recreational areas that are available to the entire neighborhood.

Consideration should be given to having lots side rather than rear on arterials in order to avoid long stretches of fencing, or to having lots front on arterials but with setbacks of sufficient depth to protect the residences from the impact of heavy traffic.

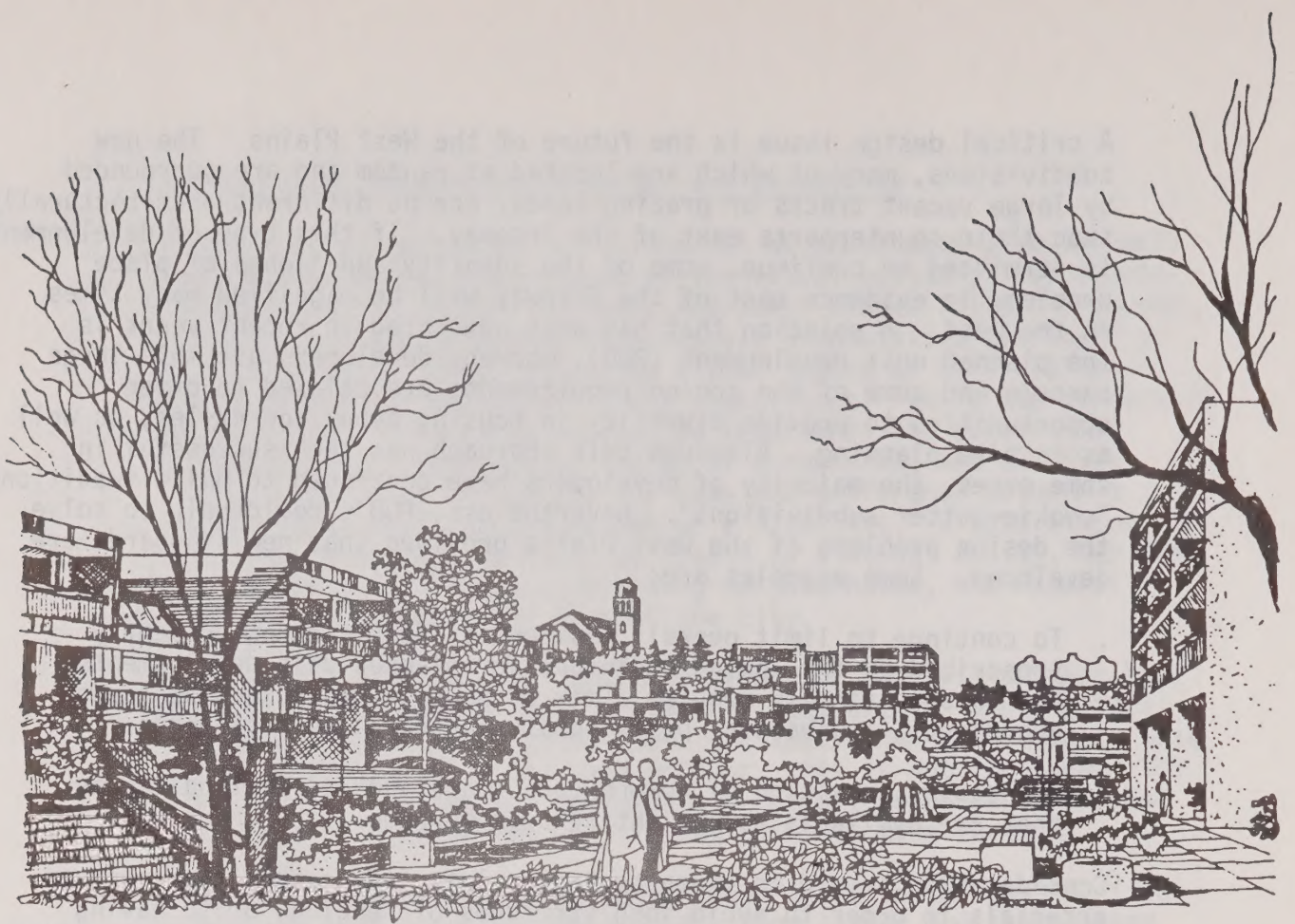
Existing Neighborhoods: Through traffic can be reduced in existing neighborhoods by providing arterial routes around rather than through residential districts. Partial street closures and traffic diverters also can be used in areas where traffic has become disturbing or dangerous to residents. Where these devices are used, landscaping also should be added. Where there are no street trees, they should be planted, following the guidelines in the Street Trees section of this chapter.

In order to mitigate the problem of existing bleak fences along rear lot lines on arterial streets, shrubs and trees should be planted outside of the fence.



Partial street closures can be used in areas where neighborhood traffic has become disturbing or dangerous to residents.





Require a mix of housing types in planned unit developments.



Allowing different setbacks in multiple-family districts could add variety to the streetscape and provide opportunities for more interesting landscape treatments and building design.



## Guideline 9: Street Trees

Santa Rosa has a strong heritage of trees. As the gateway to the Redwood Empire, oaks and redwoods are indigenous to the area. Viewed from higher elevations, a tree canopy over Santa Rosa is evident, particularly in the older sections of town. While native and planted trees on private properties make major contributions to the character of the city, street trees, either planted in planter strips adjacent to the curb or immediately behind the sidewalk, are equally important.

Street trees can be effective in strengthening the city's form by emphasizing major streets, landmarks, and vistas, and by identifying neighborhoods and buffering residential from commercial areas. The liquidambar trees along Hidden Valley Drive and the silk trees along Montgomery Drive are examples of trees which help to strengthen the visual image of streets and districts.

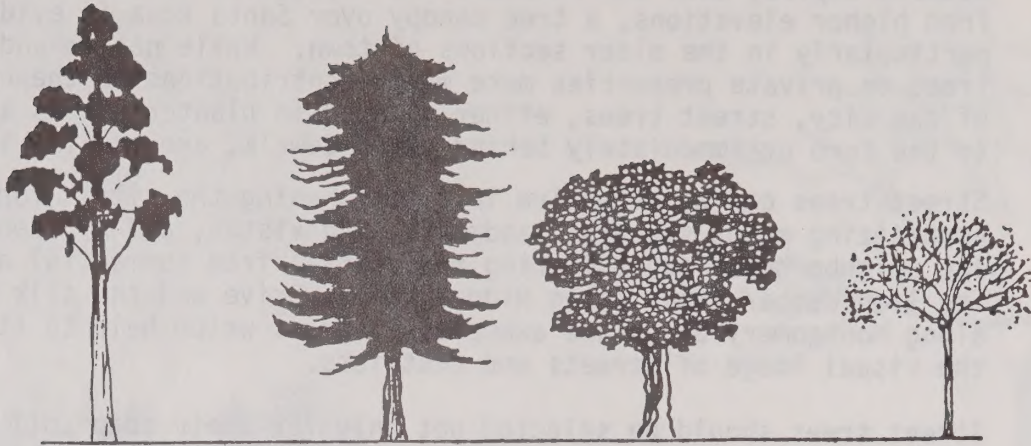
Street trees should be selected not only for their adaptability to city conditions (air pollution) and to minimize nuisance characteristics (pavement damage by roots, peeling bark, dropping fruit and seed pods), but also for their visual characteristics.

A street tree plan should be adopted and used as a guide for landscaping streets. Trees in the city can produce various effects if care is taken to select the proper trees in terms of color, shape, and size in order to achieve desired objectives such as emphasizing the hierarchy of street types, screening undesirable views or land uses, identifying different districts, or emphasizing the visual character of buildings. Seasonal effects, such as fall foliage, summer flowers and winter silhouette, also can be achieved. In addition to these considerations, variations in spacing and the choice of tree shapes and sizes to form walls or canopies or to frame views can create interesting and dramatic effects. The street tree plan should prescribe the appropriate landscape treatment for freeways, expressways, and major streets. On streets in residential districts, developers and residents should be required to plant appropriate species. The Tree Classification table below presents differences among tree species and indicates how they could be applied to a street tree plan. However, the species listed are intended to illustrate the possibilities and do not represent a definitive or recommended tree list.

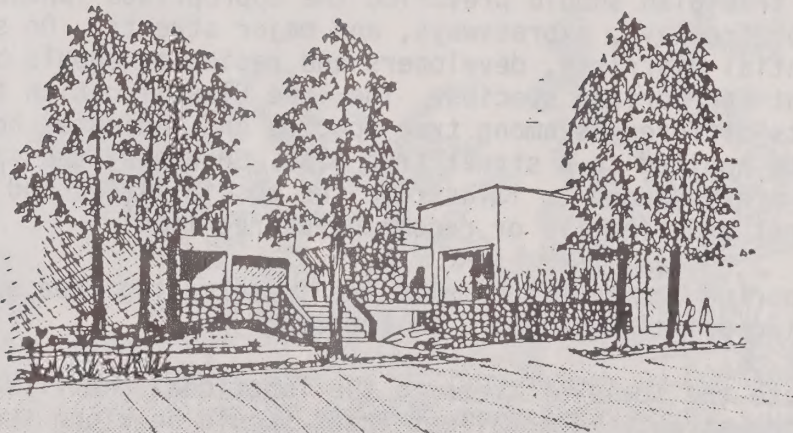
In preparing a street tree plan and in selecting tree species, the following principles should be applied:

- . Relate the scale of trees to the functional and visual importance of the street. The tallest trees should be along the major roadways, with smaller, residential-scale trees within neighborhoods.
- . Use broad-spreading, deciduous trees in residential areas to provide shade in summer and admit sun in winter.
- . Use trees native to the area wherever possible. Introduced species which already are prevalent in the area also should be favored. However, the desire to use indigenous species should not overpower the reality that many native trees are not adaptable to harsh city conditions, require excessive maintenance in a controlled setting, or are simply out-of-scale. The California Live Oak is an example of a native tree that is too large for consideration as a street tree, as well as being susceptible to fungus if its roots receive too much water in summer. However, additional plantings of oaks would be advisable in large, dry open spaces and on the hillsides.





Taller, more formal tree species should be used along freeways and expressways; shade and canopy trees in residential areas; and open smaller trees in pedestrian areas.



Encourage a variety of tree landscaping treatments.



# ILLUSTRATIVE TREE SPECIES

| Type               | Illustrative Species                                      | Form      | Application                                              | Height (ft) | Spread (ft) | Special Characteristics                                                                                                                                             |
|--------------------|-----------------------------------------------------------|-----------|----------------------------------------------------------|-------------|-------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Large Scale        | Sweet Gum ( <i>Liquidambar styraciflua</i> )              | Pyramidal | Expressway                                               | 60-100      | 30-70       | Deciduous; interesting fall color; good symmetry; little maintenance; rapid growth                                                                                  |
|                    | London Plane Tree ( <i>Platanus acerifolia</i> )          | Rounded   | Expressway; Residential districts                        | 80-100      | 50-75       | Deciduous; highly adaptable to city conditions; very rapid growth                                                                                                   |
|                    | Red Gum ( <i>Eucalyptus camaldulensis</i> )               | Rounded   | Freeway; Expressway                                      | 80-120      | 30-40       | Evergreen; weeping branches; tolerant to city conditions                                                                                                            |
|                    | Coast Redwood ( <i>Sequoia sempervirens</i> )             | Pyramidal | Open spaces; Creeks                                      | 100-360     | 20-40       | Evergreen; prevalent in area - symbolizes Santa Rosa's role as "Gateway to the Redwood Empire"                                                                      |
| Intermediate Scale | Monterey Pine ( <i>Pinus radiata</i> )                    | Pyramidal | Major streets; Freeway screen; Median strips; Background | 60-100      | 30-40       | Evergreen; picturesque; rapid growth; no maintenance                                                                                                                |
|                    | Southern Magnolia ( <i>Magnolia grandiflora</i> )         | Rounded   | Major streets; Median strips                             | 40-60       | 50-70       | Evergreen; symmetrical large leaves and huge fragrant flowers; low maintenance                                                                                      |
|                    | Honey Locust ( <i>Gleditsia triacanthos inermis</i> )     | Rounded   | Major streets; Group plantings                           | 70-80       | 30-40       | Deciduous; drought resistant; tolerant to city conditions                                                                                                           |
|                    | California Laurel ( <i>Umbellularia californica</i> )     | Rounded   | Creeks                                                   | 20-75       | 30-50       | Evergreen; aromatic; native to area; attractive form; rapid growth                                                                                                  |
| Low Scale          | Weeping Willow ( <i>Salix babylonica</i> )                | Rounded   | Creeks; Water bodies; Parks                              | 30-40       | 30-40       | Deciduous for short season; weeping branches; rapid growth                                                                                                          |
|                    | Red Ironbark ( <i>Eucalyptus sideroxylon</i> 'Rosea')     | Pyramidal | Collectors                                               | 30-50       | 10-40       | Evergreen; showy winter flowers; tolerates city conditions                                                                                                          |
|                    | Flowering Plum ( <i>Prunus cerasifera</i> 'Atropurpurea') | Rounded   | Pedestrian-oriented streets                              | 20-25       | 10-15       | Deciduous; early blooming dense flowers; purple foliage                                                                                                             |
| Shade (Canopy)     | Red Oak ( <i>Quercus borealis</i> )                       | Rounded   | Residential districts                                    | 40-60       | 60-85       | Deciduous; attractive spring and fall color; graceful winter silhouette; rapid growth                                                                               |
|                    | Modesto Ash ( <i>Fraxinus glabra</i> )                    | Rounded   | Residential districts                                    | 30-40       | 15-30       | Deciduous; very tolerant to city conditions; no maintenance                                                                                                         |
|                    | European Hackberry ( <i>Celtis australis</i> )            | Rounded   | Residential districts                                    | 40-80       | 40-50       | Deciduous; heavy shade; drought resistant; no maintenance                                                                                                           |
| Ornamental         | Saucer Magnolia ( <i>Magnolia soulangeana</i> )           | Oval      | Parks; Emphasis for building forms                       | 20-25       | 20-25       | Deciduous; spectacular blossoms before leaves appear in spring; form is well-suited for planting near buildings                                                     |
|                    | Japanese Maple ( <i>Acer palmatum</i> )                   | Rounded   | Small parks and landscaped open spaces                   | 20 max      | 20          | Deciduous; exotic branch structure and green or red leaves; striking winter silhouette; no maintenance; should not be planted where it would receive reflected heat |



- . Mix and balance deciduous and evergreen trees to achieve an attractive year-round effect.
- . Encourage planting of trees in front yards in existing neighborhoods where sidewalks are too narrow to accommodate plantings.
- . Judiciously limit the number of tree species permitted on streets in new subdivisions; ensure that the selected trees are in scale with development.
- . Encourage a variety of tree landscaping treatments, including clustering and using trees as a screen, rather than prescribing predetermined spacing.
- . Use clusters of trees to identify major entrances to the city, to frame views, to enclose views and corridors, to create a feeling of intimacy in open spaces, and to emphasize building forms.
- . In addition to trees, use large shrubs for screening and flowering shrubs to create visual interest.

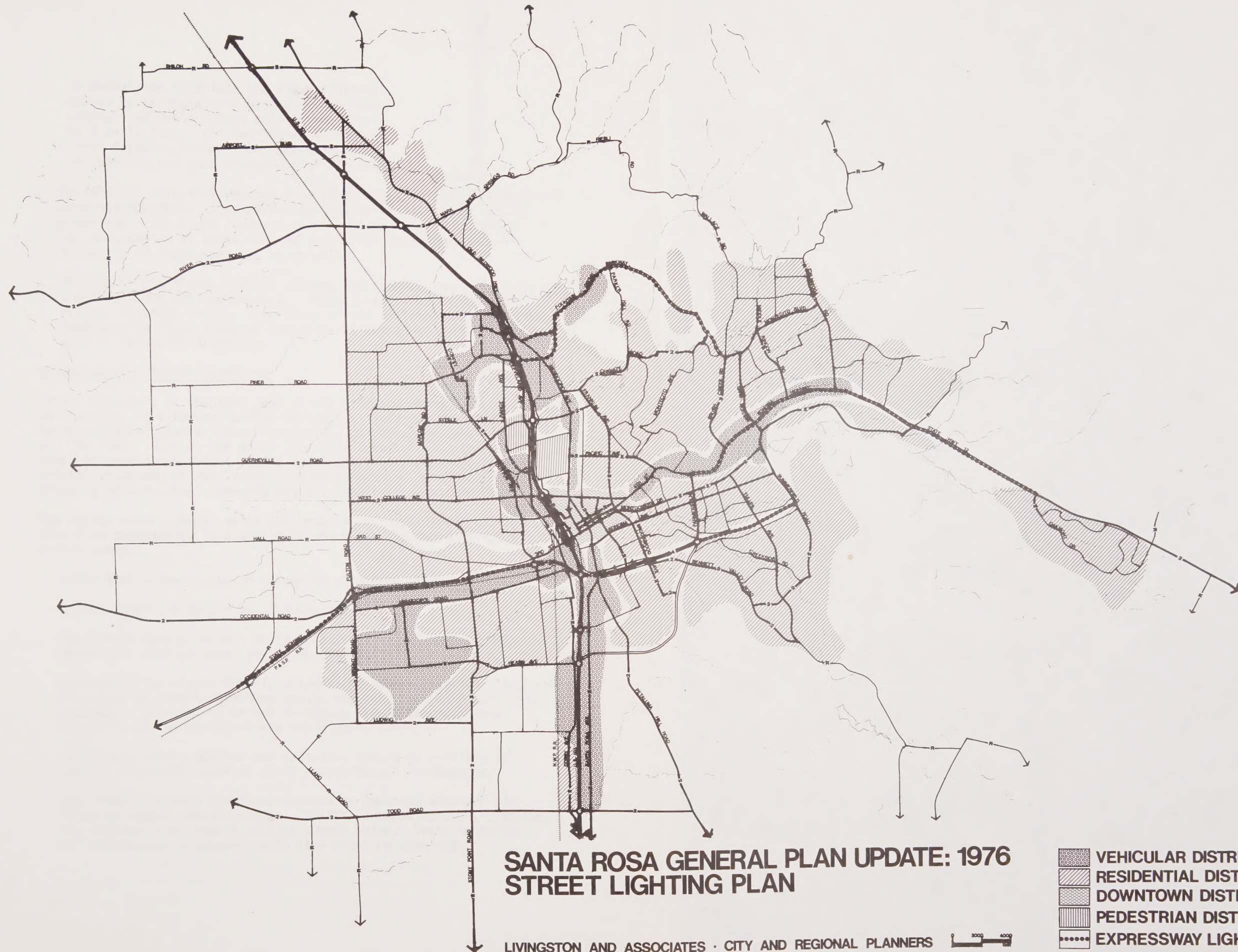
#### Guideline 10: Street Lighting

The main purpose of street lighting is to provide quick, accurate, and comfortable vision that will promote safety for both the motorist and pedestrian. Good visibility facilitates more efficient use of the streets and greater safety for all who use them. However, it also is possible to capitalize on the safety aspect of street lighting by making it an effective component of urban design. The location, spacing, fixture, color of light, mounted height, and intensity of lamps all can be used effectively not only to provide safe streets, but also as a street design element.

A street lighting plan should be adopted and used as a guide for installing street lighting. The plan would divide the city into four specific lighting districts, plus prescribing special standards for expressways.

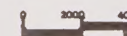
- . Vehicular districts need the highest level of light and are primarily intended to satisfy motorist safety requirements. However, since vehicular districts consist of two and four-lane major streets as well as collectors, three different lighting intensities are appropriate, with the highest on four-lane major streets and the lowest on collectors. The light fixtures used should be the same on all three street types, but the type of bulb or light output should vary. Generally vehicular districts require fixtures mounted on 35-foot poles to provide adequate light over the roadway.
- . The major objective in the downtown district should be to provide a high level of illumination for both motorists and pedestrians. This requires special light fixtures that include a luminaire projecting over the roadway and sidewalk to provide continuous distribution of light over both pavements. Another alternative would be to use two separate fixtures alternating at regular intervals along the street. The roadway luminaire should be mounted at about a 30-foot height and the sidewalk luminaire at about 10 feet.





# SANTA ROSA GENERAL PLAN UPDATE: 1976 STREET LIGHTING PLAN

LIVINGSTON AND ASSOCIATES · CITY AND REGIONAL PLANNERS



- VEHICULAR DISTRICT
- RESIDENTIAL DISTRICT
- DOWNTOWN DISTRICT
- PEDESTRIAN DISTRICT
- EXPRESSWAY LIGHTING







- . In pedestrian districts the light fixtures should be in scale with people rather than automobiles, which means pole height should be 8 or 10 feet. The pedestrian-scaled light fixtures in Railroad Square should reflect the old town atmosphere of the area.



- . Residential districts require a level of lighting that is compatible with neighborhoods. Luminares mounted on 12-foot poles are appropriate. The light fixtures used in residential areas can be of the same design as those used in pedestrian districts, but the intensity of light need not be as great.
- . Because of the higher traffic volumes and speeds, special standards are prescribed for expressways. These streets should have the highest lighting levels, regardless of the district they traverse. However, the light fixtures should be of the same design as those used in vehicular districts.

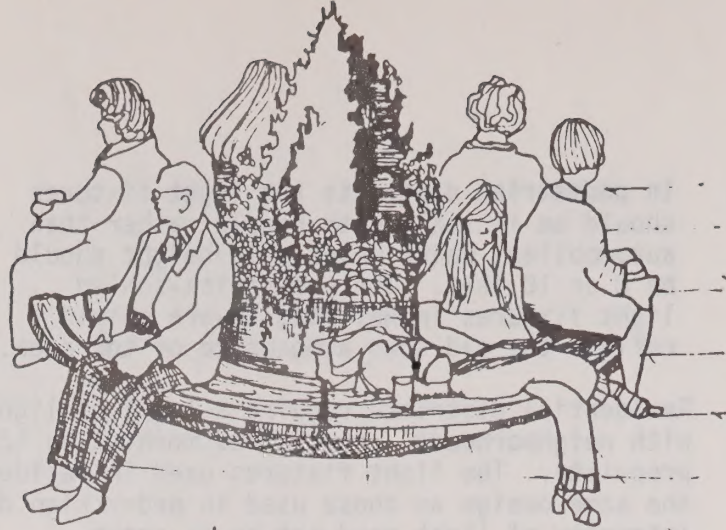
#### Guideline 11: Street Furniture

Street furniture is the term used to describe the various items located on sidewalks or elsewhere within the public right-of-way. These include light fixtures, trash containers, benches, newspaper racks, and the like. Just as one might carefully choose furniture in a home, so should one select street furniture. Harmonious design, careful placement to facilitate ease of pedestrian movement, and grouping of individual elements are all important considerations.

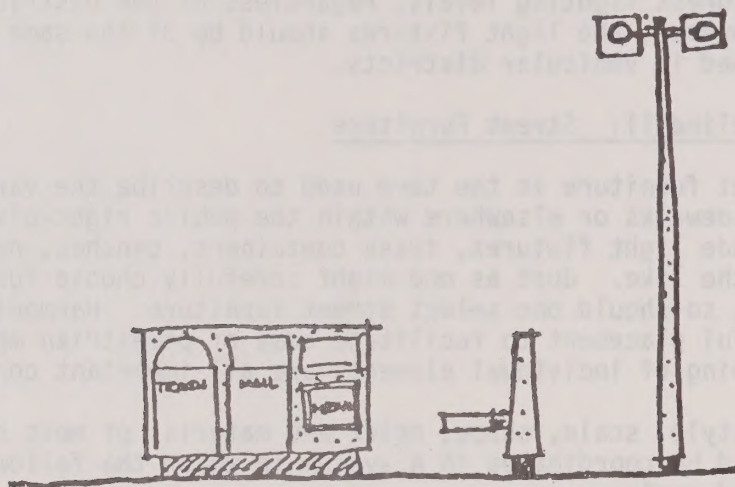
The style, scale, shape, color and material of most street furniture should be coordinated in a system in which the following principles should apply.

- . Individual elements should harmonize with each other.
- . Street furniture should be of human scale.
- . The design should reflect Santa Rosa's character; warm natural materials, such as wood, should be utilized.
- . Because of the higher traffic volumes and speeds, special standards
- . Placement of street furniture should not interfere with pedestrian movement. Location of street furniture should be considered carefully in the design of new and widened streets.
- . Consistent paving designs and materials should be utilized in special districts, such as along Fourth Street in downtown.
- . Individual elements should be grouped or combined whenever possible to reduce visual clutter. Traffic control devices, lighting, and related items should utilize common poles. Trash container, mail boxes, and newspaper racks also might be combined.

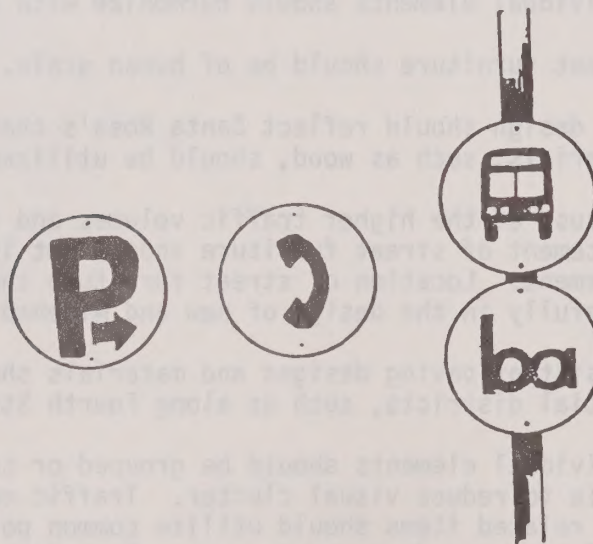




Street furniture should be of human scale and warm natural materials, such as wood, should be utilized.



Develop a coordinated system of street furniture.



Utilize graphics or pictographs and develop a modular sign size so that different signs mounted in one area or on one pole will be consistent in appearance.



## Guideline 12: Signs

A significant and prominent aspect of the city's appearance is signs and other graphic announcements. Signs are vitally important to the traveler and resident alike and provide direction, instruction, safety, identification, and orientation.

Public Signs: Public signs are intended primarily for the motorist and usually provide information on motor vehicle regulations, street names, and public facilities locations. The design of most of the signs used to ensure motorists' safety and to indicate regulations are governed by State law. However, most informational signs, such as those identifying bus stops, locations of public facilities, and scenic roadways routes, are governed by local regulations. The variety of types of public signs now in use should be coordinated into a uniform system applying the following standards.

- . Utilize graphics or pictographs as much as is possible.
- . Develop consistency and uniformity on worded signs by adhering to a uniform type face and consistent graphic symbols.
- . Develop a modular sign size so that different signs mounted in one area or on one pole will be consistent in appearance.
- . Direct auto-oriented signs to the motorist and pedestrian-oriented signs to the pedestrian by varying mounting height and orienting the sign to the user.
- . Minimize the number of places where signs are mounted on the street, and avoid locating signs where they block important vistas or landmarks unless public safety dictates otherwise.
- . Utilize street name signs to identify street types by varying the color and size of sign according to street type. Expressways should have the largest signs, and major cross streets should be announced in advance. Street name signs on major arterials should be somewhat smaller and a different color. An even smaller size and third color should be used for all other streets.
- . A system of directional signs should be designed and installed to direct motorists and pedestrians to major destinations and points of interest. These signs could be a separate system or could be incorporated into a system designating scenic highways.

Private Signs: Private signs are those which identify private businesses and products and which are regulated by the Zoning Ordinance. Although for several years Santa Rosa has had a Sign Ordinance under which all signs are subject to design review, there are no specific design standards or policies other than dimensional parameters. Design of signs, like design of buildings, should respond to individual needs. Specific standards probably cannot be written which would be appropriate in all cases. In order to



achieve consistently good sign design, general design review criteria should be prescribed to complement basic regulations of size, location, and illumination. Design criteria should include the following:

- . Signs should be designed as integral elements of the urban scene and should be visually compatible with the architecture of the building and the surrounding environment.
- . The lighting and color intensity of signs should vary according to district and purpose.
- . Roof signs should not be permitted except in unique situations.
- . Projecting signs should be prohibited except for graphic signs, heraldic banners, iconographic signs, and other non-worded displays.
- . Variety of sign types and illumination should be encouraged, except in special situations such as shopping centers and industrial parks where harmony is more appropriate than variety.



## INTRODUCTION

The primary function of the Housing Element is to provide a comprehensive set of guidelines for day-to-day activities affecting the quality and quantity of housing within the City. The element serves as a framework for the evaluation of special projects, such as public and private. It also serves to establish a coordinated and systematic source of action for dealing with community housing concerns on a long-range basis. The Housing Element acts as a guide to the initiation of various public programs and commitment of public resources by the City for specific activities related to housing.

Government Code Section 65022(c) requires a housing element of all cities and county general plans, as follows:

A housing element, to be developed pursuant to regulations established under Section 65041 of the Health and Safety Code, consisting of standards and plans for the improvement of housing and for provision of adequate sites for housing. The element of the plan shall make adequate provision for the housing needs of all economic segments of the community.

The current Housing Element was adopted August 22, 1972, and represents the City's policy regarding housing. This element consists of three reports: Plan for Housing, Analysis and Recommendations for Preparation of the Housing Element, and the Housing Element. The Housing Element is out of date and will be updated during the 1977-79 fiscal year. In 1971, the City has received a Comprehensive Planning Assistance (CPA) grant from the federal government.

## HOUSING ELEMENT







## INTRODUCTION

The primary function of the Housing Element is to provide a comprehensive set of guidelines for day-to-day decisions affecting the quality and quantity of housing within the City. The element serves as a framework for the evaluation of special projects, both public and private. It also serves to establish a coordinated and realistic course of action for dealing with community housing concerns on a long-range basis. The housing element acts as a guide to the initiation of various public programs and commitment of public monies by the City for specific activities related to housing.

Government Code Section 65302(c) requires a housing element of all city and county general plans, as follows:

A housing element, to be developed pursuant to regulations established under Section 37041 of the Health and Safety Code, consisting of standards and plans for the improvement of housing and for provision of adequate sites for housing. This element of the plan shall make adequate provision for the housing needs of all economic segments of the community.

The current Housing Element was adopted August 22, 1972, and represents the City's policy regarding housing. This element consists of three reports; Plan For Housing, Analysis of Housing and Documentation for Preparation of the Housing Element. The current element, however, is out of date and will be updated during the 1977-78 fiscal year. To accomplish this the City has received a Comprehensive Planning Assistance (701) grant from the federal government.















## INTRODUCTION

The State Planning Law, in prescribing requirements for Open Space and Conservation Elements, has placed specific responsibilities on local government for comprehensive and long-range preservation and conservation of open space, and for conservation, development and utilization of natural resources within its jurisdiction. Specific authority is derived from the following government code sections: Sections 65302(e) and 65560 et seq. require an open space element in all city and county general plans. Section 65563 states: On or before December 31, 1973, every city and county shall prepare, adopt, and submit to the Secretary of the Resources Agency a local open space plan for the comprehensive and long-range preservation and conservation of open space land within its jurisdiction. Section 65562 states: It is the intent of the Legislature in enacting this article: (a) To assure that cities and counties recognize that open-space land is a limited and valuable resource which must be conserved wherever possible; and, (b) To assure that every city and county will prepare and carry out open-space plans which, along with state and regional open space plans, will accomplish the objectives of a comprehensive open space program. (Added by Stats. 1970, c. 1590, p. 3316, Section 15.)

Section 65561 states that the Legislature finds and declares as follows:

- (a) That the preservation of open space land, as defined in this article, is necessary not only for the maintenance of the economy of the State, but also for the assurance of the continued availability of land for the production of food and fiber, for the enjoyment of scenic beauty, for recreation and for the use of natural resources;
- (b) That discouraging premature and unnecessary conversion of open space land to urban uses is a matter of public interest and will be of benefit to urban dwellers because it will discourage noncontiguous development patterns which unnecessarily increase the costs of community services to community residents;
- (c) That the anticipated increase in the population of the State demands that cities, counties, and the State at the earliest possible date make definite plans for the preservation of valuable open space land and take positive action to carry out such plans by the adoption and strict administration of laws, ordinances, rules and regulations as authorized by this chapter or by other appropriate methods;
- (d) That in order to assure that the interests of all its people are met in the orderly growth and development of the State and the preservation and conservation of its resources, it is necessary to provide for the development by state, regional agencies, counties and cities, including charter cities, of statewide coordinated plans for the conservation and preservation of open space lands; and



- (e) That for these reasons this article is necessary for the promotion of the general welfare and for the protection of the public interest in open space land. (Added by Stats. 1970, c. 1590, p. 3315, Section 15.)

Government Code Section 65302(d) requires a conservation element of all city and county general plans as follows:

A conservation element for the conservation, development, and utilization of natural resources including water and its hydraulic force, forests, soils, rivers and other waters, harbors, fisheries, wildlife, minerals, and other natural resources. That portion of the conservation element including waters shall be developed in coordination with any county-wide water agency and with all district and city water agencies which have developed, served, controlled or conserved water for any purpose for the county or city of which the plan is prepared. The conservation element also may cover:

- (a) The reclamation of land and waters.
- (b) Flood control.
- (c) Prevention and control of the pollution of streams and other waters.
- (d) Regulation of the use of land in stream channels and other areas required for the accomplishment of the conservation plan.
- (e) Prevention, control and correction of the erosion of soils, beaches, and shores.
- (f) Protection of watersheds.
- (g) The location, quantity and quality of the rock, sand, and gravel resources.

The Santa Rosa Open Space/Conservation Element, which was prepared and adopted in 1973, consists of four plan components. The first sets forth goals, objectives and policies for waterways, flood plains, the Laguna de Santa Rosa, hillsides, interior valleys, agricultural lands, the west plains and the urban core. The second consists of a Conceptual Open Space Diagram which depicts areas designated intensive agriculture land as permanent open space. The third describes four zoning classifications which can be utilized to implement open space policy. And the fourth consists of specific action programs to implement the Open Space/Conservation Element.

## OBJECTIVES AND POLICIES

### The Natural Waterways Environment

#### Objectives

1. Protect existing natural waterways in their natural state, and restore channels which already are modified.



(A natural waterway is defined as a waterway which can support its own environment of vegetation, fowl, fish and reptiles, and which appears natural.)

2. Establish flood plain protection at the 100-year flood level.
3. Encourage the multi-use concept of waterways.

#### Policies

1. Secure dedication of scenic easements along natural waterways. The width of the easements should be within the 100-year flood level or up to a maximum of 150 feet on either side, whichever is greater.
2. Compensate property owners where public access or restrictions placed on uses of land abutting natural waterways may result in reduced land value. Property owners should be compensated by appropriate reassessment or by direct compensation until the reassessment is completed.
3. Establish a means for open space acquisition. The guiding principle shall be "He who benefits shall pay".
4. Establish priorities for acquisition of waterway property and easements based on the following criteria:
  - a. Is there a serious flooding, erosion, or sediment hazard which can best be alleviated by immediate restriction of land use adjacent to the waterway?
  - b. Is the land under serious pressure for development now or would it be in the future?
  - c. Does the property act as a significant link between two parts of the community or is it a part of larger system of trails?
  - d. Does the waterway play an important role in offering relief from dense urbanization? Does it serve to give identity to the community or neighborhood?
  - e. Is the waterway unique in some sense? Is the biotic community of vegetation and wildlife which it supports of scenic, educational, or recreational importance on a local, regional, or statewide basis?



## THE HILLSIDES ENVIRONMENT

### Objectives

1. Preserve those lands subject to severe environmental hazards: geologic or hydraulic constraints, poor soils, or fire-prone areas.
2. Preserve the visual amenities of the hillsides including elements of scale, form, and color derived from topography and vegetation, for the benefit of the community.
3. Preserve the hillsides as ecological units even where public access is not possible.
4. Where development is permitted to occur on hillsides, then land uses, from parks to high-density housing, should be located in a manner sensitive to available natural resources and constraints.
5. The scale and beauty of hillsides and mountains should be retained. If development on hillsides occurs, land should be preserved in parcels large enough to accommodate natural features and processes.
6. If development on hillsides is to occur, valuable natural vegetation, especially forests and open grasslands, should be maintained so that the natural hillsides environment is not lost forever.
7. Achieve excellence of design in all hillside construction and site development.

### Policies

1. Establish a permanent open space system linking hillside areas to waterways and urban greens. This hillside open space shall be acquired on the basis that maximum benefit is achieved for the maximum number of people, as open space for public safety, as scenic open space, and as recreational open space. Criteria by which open space properties are to be evaluated prior to acquisition include the following:
  - a. Scenic or visual attraction from the valleys and plains.
  - b. Scenic or visual attraction from the immediate vicinity.
  - c. Recreation potential.
  - d. Effects on adjacent land.
  - e. Maintenance cost and fire hazard.



- f. Slippage, erosion, geologic hazards, and other hazards to development.
  - g. Danger of downstream flooding or sedimentation should development occur.
  - h. Composition of fragile soils and presence of prime agricultural land.
  - i. Unique plant communities all to be preserved for educational reasons.
  - j. Wildlife habitats which would be disturbed by development and retention of corridors for wildlife migration.
- 2. Encourage involvement of public interest groups in identifying, acquiring, and maintaining those hillside areas of unique visual quality, especially the exposed outer slopes and ridges.
  - 3. Require good land management practices on all hillside lands in response to fire hazard, forest and watershed protection, and range lands protection.
  - 4. Require use permit and design review of all hillside development proposals.

## THE INTERIOR VALLEYS ENVIRONMENT

### Objectives

- 1. Maintain significant open space areas in the interior valleys.
- 2. Insure the health and safety of residents by preserving the existing environmental quality. Preserve a maximum amount of land in vegetation. Preserve areas of prime soils and use natural waterways as corridors of open space.
- 3. Preserve open space in urbanizing areas in the form of greenbelts which delineate smaller neighborhoods and systematically tie them together. Assure that the interior valleys remain as a quality living environment for the entire spectrum of income levels.

### Policies

- 1. Identify open space greenbelts in each of the interior valleys. Work with the County to prepare an area plan of the Upper Rincon Valley area.
- 2. Preserve the continuity of the open space system by encouraging cluster developments.
- 3. Designate scenic corridors in the interior valleys. Preserve land immediately adjacent to these corridors and maintain existing rural roads for a low traffic flow.



## THE LAGUNA ENVIRONMENT

### Objectives

1. Designate the entire Laguna area as a permanent greenbelt between expanding urban areas and preserve this area for the public benefit.
2. Preserve and protect the Laguna as a wildlife habitat.
3. Maintain the Laguna flood plain in agricultural use.

### Policies

1. Maintain the water quality in the Laguna and its tributaries at a level so that the biotic life support system of plants-fish-animals can survive and multiply.
2. Distribute treated effluent first to the lands within the Laguna flood plain to assure their continued agricultural productivity. Promote the agricultural use of land surrounding the Laguna flood plain, especially around the Llano wastewater treatment plant, by extending effluent dispersal systems to these lands as well.

## THE AGRICULTURAL LANDS ENVIRONMENT

### Objectives

1. Maintain the agricultural use of prime soil areas.
2. Examine areas of low agricultural productivity for other open space uses prior to urbanization.
3. Encourage wise land management and farming practices which will preserve agricultural uses.

### Policies

1. Maintain a reliable source of good agricultural water to the prime soil lands along River Road. Mold any future plans for new waste water treatment facilities with this need in mind.
2. Establish and maintain critical links in a potential public trail system, linking the urban core of Santa Rosa to the outlying open space lands.

## THE WEST PLAINS ENVIRONMENT

### Objectives

1. Preserve the existing rural quality of the west plains, including special qualities such as the presence of scattered



Valley Oak trees and the sense of wide, expansive open space.

2. Maintain a substantial buffer of open space between Santa Rosa and Sebastopol. This buffer area should be more than just the Laguna. Continue this buffer area to the south so that an open space area will remain between Santa Rosa and Rohnert Park.
3. Preserve the existing views of open rural land available from roads which cross the west plains.

#### Policies

1. Permit additional urban growth and infill development only in the area of existing rural residential development. Maintain agricultural or similar open space uses on the surrounding land.
2. Give priority to the west plains area for completion of an implementation plan for open space preservation.
3. Include within any plan for the west plains a detailed and specific system of public trails, utilizing flood control channels and other potential easements to link existing isolated developments. Control development along rural roads traversing open space. Encourage a parkway concept for roads which may "edge" the dense urban development.

#### THE URBAN CORE ENVIRONMENT

##### Objectives

1. Preserve an identifiable commercial urban core for Santa Rosa which is people oriented.
2. Preserve safe, pleasant, well-identified neighborhoods each with non-motorized access routes linking schools, parks and commercial areas.
3. Provide adequate community and neighborhood open space with links into a greater fabric of regional open space.
4. Preserve the natural historic setting of the city itself, oriented to the hills, and with sufficient native vegetation within each neighborhood to maintain an awareness of nature and her cycles.
5. Promote wise and careful planning for open space in new as well as in old developments, in order to encourage the creation and preservation of cohesive, viable neighborhoods.
6. Develop a cohesive fabric of all the different levels of usable open space throughout the entire City. To this end, all urbanized areas should provide for the open space needs of their inhabitants.



## Policies

1. Encourage adequate provision for meeting the open space needs of the community by promoting flexibility in design standards for subdivisions and for individual buildings in the urbanized area.
2. Preserve a livable environment and a cohesive community.
3. Require usable open space for subsidized housing.
4. Special attention should be given to the routing of major traffic arterials around existing neighborhoods together with a system of non-motorized access routes which in turn will link urban open space areas with larger outlying open space lands.

## OPEN SPACE ZONING CLASSIFICATIONS

Four open space zoning classifications have been adopted to help implement the Open Space Plan. The zoning districts are found in the Santa Rosa Zoning Ordinance. The stated purpose of each district is summarized as follows:

### 1. Scenic Open Space Combining District (SOS)

- a. To control land use within areas of great scenic value to residents and visitors of the Santa Rosa Planning Area.
- b. To control any alteration of the natural environment and terrain in areas of special ecological and educational significance to the entire community.
- c. To enhance and maintain for public welfare and well being the public amenities accrued from the preservation of the scenic beauty and environmental quality of the Planning Area.

### 2. Agricultural Exclusive Zone (AE)

- a. Preserve in agricultural use prime agricultural land.
- b. Deter the uneconomic and premature conversion of agricultural lands to discontinuous urban development.
- c. Encourage the retention of open space.

### 3. Planned Area Combining District (PA)

To promote the goals and policies of the Open Space and Conservation Element of the Santa Rosa Area General Plan by providing area-wide development objectives, principles, and standards whereby all land development will be designed so as to create broad and continuous open space areas irrespective of property lines by arrangement of such development on a portion of the land.



#### 4. Hillside Residential District (RH)

To provide for the development of hillside areas in a manner which will preserve the environmental and scenic benefits of these areas and protect development on the hillsides and in surrounding areas from geologic and hydraulic hazards for the health, safety and welfare of the general public.

#### CONCEPTUAL OPEN SPACE PLAN DIAGRAM

The City Council adopted the Conceptual Open Space Plan Diagram when it adopted the objectives and policies of the Open Space Element. The Diagram has two components: (1) the Open Space Plan map; and (2) supporting text consisting of descriptive analyses, policies, and proposals. The Conceptual Open Space Plan Diagram and supporting text are as follows:

##### 1. Intensive Agricultural Open Space

This prime soils area would be comprised of large parcels in exclusive agricultural use. This continued agricultural use could be implemented by application of the AE zone.

In the Mark West Creek area, one of the last remaining natural waterways in the General Plan area, high scenic and ecological significance is exhibited. Protective zoning should be initiated to protect riparian vegetation, and to control development near the creek in the flood plain area in order to assure that the waterway, as a wildlife habitat, will be protected.

##### 2. Intensive Agricultural Open Space

This area is proposed for gentleman farming. Soils and climate factors are amenable to continue productive intensive agricultural use, given careful management practices. The AOS zone could be applied here, in order to maintain continued intensive agricultural use, and to insure satisfactory operation of septic systems given severe percolation limitations in the area.

##### 3. Extensive Agricultural Open Space

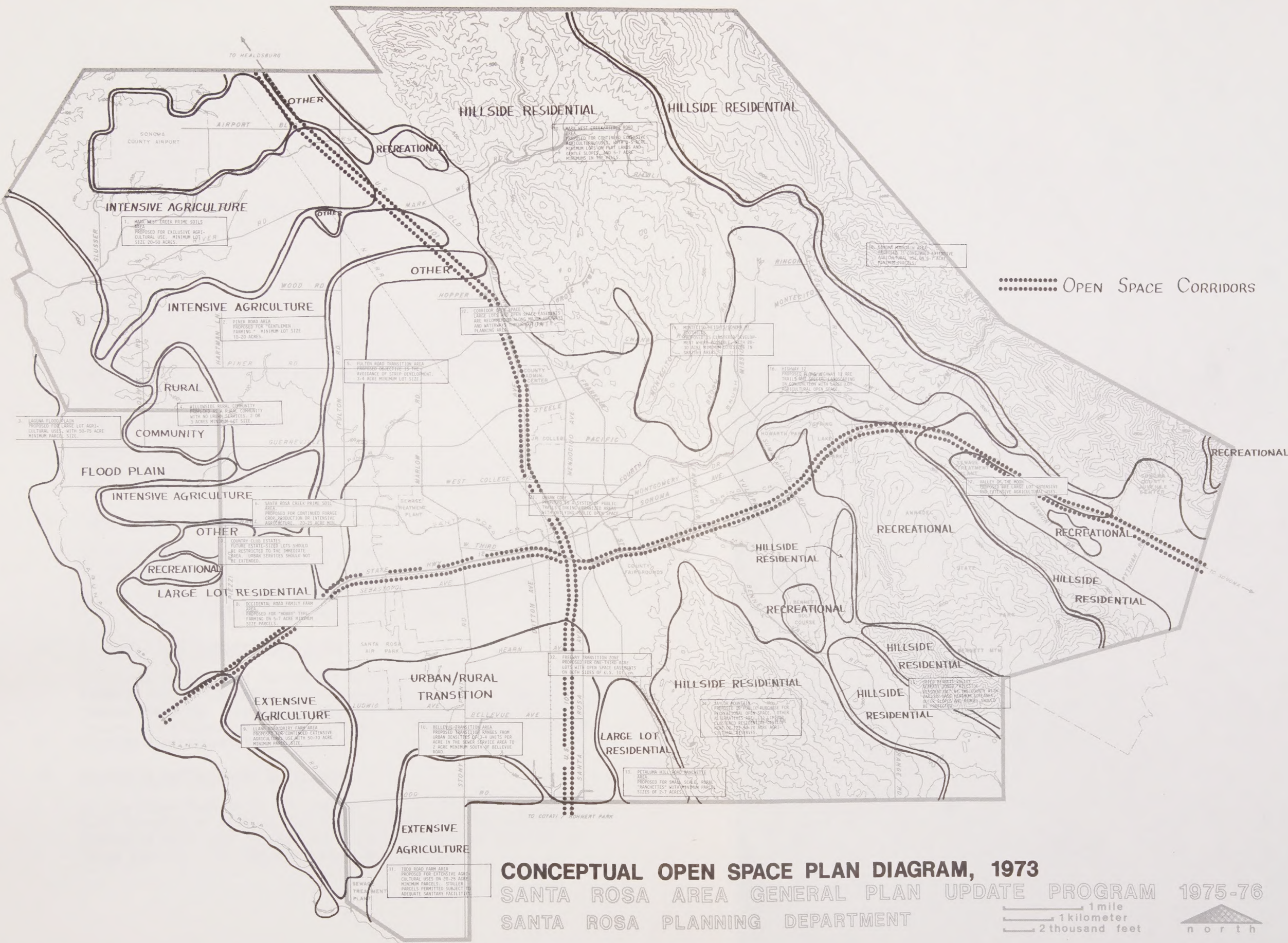
In the Laguna de Santa Rosa, the application of the F1 zone has helped protect this area which is subject to yearly inundation. This area also serves as an important air shed for the cities of Santa Rosa and Sebastopol. Grazing and forage crop production seem to be appropriate in this area. The AOS zone could be applied here.

The Laguna de Santa Rosa represents a delicate and unique ecological environment. It is a habitat for a variety of wildlife. Although the area is in various private ownerships, protective measures should be initiated so as to monitor any alteration of the environment.















The SOS combining district could be used to insure sound management practices for the preservation of this area's unique amenities.

4. Rural Community Open Space

In the Willowside Road area, the existing rural development should be delineated as a rural community. No urban services should be extended to this area. The AOS zone could be applied here in conjunction with the establishment of a septic tank maintenance district. Alternately, a community sewage treatment plant could be built with the treated wastewater from the ponds to be used for irrigating private extensive open space. Commercial activity, if desired, should develop on a rural service center scale.

5. Transition Zone/Corridor Open Space

In the Fulton Road area, a transition area from urban to rural densities is needed. The corridor open space effect could be achieved through the use of the PA zone. The objective would be the avoidance of strip development along Fulton Road, especially to the west since such development would destroy the scenic amenity of "visible" open space in the west plains.

6. Extensive Agricultural Open Space

The Santa Rosa Creek environs are comprised of prime soils that are currently in forage crop production on large parcels. The AOS zone can be used here to insure continued extensive agricultural use.

7. Rural Community Open Space

In the Country Club Estates area, future estate sized lots should be restricted to this immediate area. To insure the continued rural character of the surrounding area, no urban services should be extended to this area. A ponding system for sewage treatment would yield irrigation water for the golf course.

8. Intensive Agricultural Open Space

This area is proposed for family farming. Because of soil and farming factor limitations, crop production would be limited to "hobby" farming. The AOS zone could be applied here in order to insure satisfactory operation of septic systems given severe percolation limitations in the area.

9. Extensive Agricultural Open Space

In the Llano Road area, poor soils, high ground water table, and poor percolation dictate continued extensive agricultural use. Currently this area is used for large scale dairy operations on large parcels. The AOS zone could be used here.



10. Transition Zone

The Bellevue area can be sewerred from existing sewer lines, and also because of prepaid assessments along the airport trunk. Unless these assessments along the airport trunk are bought back, by the City, residential densities should be developed in these periphery areas in gradations, from strictly urban out to rural sized lots, through use of the PA zone to effectuate some semblance of a buffer of open space between Santa Rosa and Rohnert Park (study should be made of the feasibility of buying back the assessment along the airport trunk).

11. Extensive Agricultural Open Space

In the Todd Road area, poor climate and soils, severe percolation and ponding problems suggest continued use for small scale ranching. The AOS zone could be applied here. Lot size would vary subject to the owner/developer obtaining a certified engineer's statement of adequacy for septic system operation. Rural ranchette subdivisions with community sewage treatment ponds could use the effluent for irrigation of public and/or private extensive open space.

12. Transition Zone/Corridor Open Space

Adjacent to Highway 101 both north and south of the City, the PA zone could be used to assure a corridor open space effect in urban density areas.

13. Extensive Agricultural Open Space

In the Petaluma Hill Road area, poor climate and soils, and poor percolation suggests continued use for small scale ranchettes. The AOS zone could be applied here with lots large enough to insure adequate functioning of septic systems. Rural ranchette subdivisions with community sewage treatment ponds could use the effluent for irrigation of public and/or private extensive open space. Due to the high scenic value of the area in relation to its visibility from Highway 101, the PA zone should be used to insure continuity of visible open space.

14. Hillside Residential/Extensive Agricultural Open Space

The Taylor Mountain area is a highly desirable scenic amenity. Its open slopes, and ridge lines should be left in their natural state. Current extensive agricultural use on three large ranches will not continue to be feasible without an agricultural preserve contract. This area could possibly be developed as a City/County park site, with, at the very least, acquisition of lands to provide public access from the County Fairgrounds over Taylor Mountain to Annadel State Park. An alternate use of the area could include limited clustered residential development, while preserving the scenic amenities of the mountain and allowing a public easement over the mountain. The AOS zone could be used in the interim.



15. Hillside Residential/Extensive Agricultural Open Space

Upper Bennett Valley - This area already is zoned under a County R-H zone. This plan agrees with that zoning. On outer, grass covered slopes and ridges, any development on the hillside must preserve the natural scenic amenity in highly visible areas. The application of SOS combining district in these areas could achieve preservation of scenic visual amenities.

16. Corridor Open Space

In the Highway 12 area, special landscaping and equestrian/bicycle trails along Highway 12 would help preserve the scenic amenity in conjunction with large lot intensive and extensive agricultural open space adjacent to the highway.

A precise scenic highway plan is being developed by the County Planning Staff in conjunction with a Citizens' Committee. This diagram is contingent upon the findings of the County.

17. Valley of the Moon Study Area

A precise plan for the Valley of the Moon is currently being developed by the County Planning Staff in conjunction with property owners in the area.

18. Extensive Agricultural Open Space

In the Sonoma Mountain area, rugged terrain, limited agricultural capability, and high scenic value suggests continued extensive agricultural use. Either the AOS zone or the R-H zone could be applied here. The scenic combining district should also be used to protect the scenic amenity of visually prominent areas.

19. Hillside Residential/Extensive Agricultural Open Space

In the Sonoma Mountain and Montecito Heights foothills, the R-H zone would be applied to include cluster development in the foothills. On outer, grass covered slopes and ridges, any development on the hillside must preserve the natural scenic amenity in highly visible areas. The application of the SOS combining district in these areas could achieve preservation of scenic visual amenities.

20. Hillside Residential/Extensive Agricultural Open Space

The Mark West/Riebli Road area is a part of the Mark West Creek watershed. Protection of the waterway suggests limiting lot sizes to insure adequacy of septic system operation thereby insuring acceptable water quality in the waterway. Any major development in the area should implement a septic tank maintenance district or community integrated pond system. Protection from fire danger encourages continued extensive agricultural use. The AOS zone



could be used here with larger lots in the hills and smaller lots on flat or gentler slopes. The PA district should be used along Riebli and Mark West Springs Roads to implement a scenic corridor effect.

In the Mark West Creek area, one of the last remaining natural waterways in the General Plan area, high scenic and ecological significance is exhibited. Protective zoning should be initiated to protect riparian vegetation, and to control development near the creek in the flood plain area in order to assure that the waterway, as a wildlife habitat, will be protected.

## 21. Urban Open Space

The open space plan within the City of Santa Rosa proper shall be handled as part of a Park and Recreation Element to the General Plan.

To insure the viability of the open space system for the Santa Rosa General Plan area, a system of public trails must be implemented, linking the urban and urbanizing areas with larger outlying public open spaces. This system of trails will be developed as part of the Park and Recreation Element of the General Plan.



## INTRODUCTION

The California State Legislature, through enactment of the Seismic Safety and Safety Element Act, placed specific responsibility on local government for identification and mitigation of natural hazards, and formation of programs and regulations to reduce risk. The act is divided into three parts: Part 1 (Sections 15000-15005) which requires local government to identify and evaluate natural hazards; Part 2 (Sections 15006-15009) which requires local government to develop and implement a seismic safety element; and Part 3 (Sections 15010-15011) which requires local government to develop and implement a flood hazard reduction element.

The Seismic Safety Element shall include an assessment of the seismicity of the community, including identification of seismic hazards, and an assessment of the vulnerability of the community to seismic hazards. The assessment shall include identification of seismic hazards, and an assessment of the vulnerability of the community to seismic hazards. The assessment shall include identification of seismic hazards, and an assessment of the vulnerability of the community to seismic hazards.

The Seismic Safety Element shall include an assessment of the seismicity of the community, including identification of seismic hazards, and an assessment of the vulnerability of the community to seismic hazards. The assessment shall include identification of seismic hazards, and an assessment of the vulnerability of the community to seismic hazards. The assessment shall include identification of seismic hazards, and an assessment of the vulnerability of the community to seismic hazards.

The Seismic Safety Element shall include an assessment of the seismicity of the community, including identification of seismic hazards, and an assessment of the vulnerability of the community to seismic hazards. The assessment shall include identification of seismic hazards, and an assessment of the vulnerability of the community to seismic hazards. The assessment shall include identification of seismic hazards, and an assessment of the vulnerability of the community to seismic hazards.

### SEISMIC/SAFETY ELEMENT

The purpose of this section is to provide a framework for the development of a seismic safety element. The purpose of this section is to provide a framework for the development of a seismic safety element. The purpose of this section is to provide a framework for the development of a seismic safety element.

The basic objectives of the Seismic Safety and Safety Element are to identify and evaluate natural hazards threatening the City of Santa Rosa, and to recommend policies which would reduce the adverse impact of these hazards. The basic objectives of the Seismic Safety and Safety Element are to identify and evaluate natural hazards threatening the City of Santa Rosa, and to recommend policies which would reduce the adverse impact of these hazards. The basic objectives of the Seismic Safety and Safety Element are to identify and evaluate natural hazards threatening the City of Santa Rosa, and to recommend policies which would reduce the adverse impact of these hazards.

## EXISTING CONDITIONS

### TYPES OF HAZARDS

Three basic groups of natural hazards are considered in this document: seismic, flooding, and wildfire. These hazards are considered in this document because they are the most significant threats to the safety and health of the community. The purpose of this section is to provide a framework for the development of a seismic safety element. The purpose of this section is to provide a framework for the development of a seismic safety element. The purpose of this section is to provide a framework for the development of a seismic safety element.







## INTRODUCTION

The California State Legislature, through requirements of the Seismic Safety and Safety Elements, has placed specific responsibilities on local government for identification and evaluation of natural hazards and formation of programs and regulations to reduce risk. Specific authority is derived from Government Code Sections 65302(f) and 65302.1 which require Seismic Safety and Public Safety Elements of all city and county general plans as follows:

"A Seismic Safety Element consisting of an identification and appraisal of seismic hazards such as susceptibility to surface ruptures from faulting, to ground shaking, to ground failures, or to the effects of seismically induced waves such as tsunamis and seiches.

"The Seismic Safety Element shall also include an appraisal of mudslides, landslides, and slope stability as necessary geologic hazards that must be considered simultaneously with other hazards such as possible surface ruptures from faulting, ground shaking, ground failure, and seismically induced waves." (Section 65302(f).

"A Safety Element for the protection of the community from fires and geologic hazards including features necessary for such protection as evacuation routes, peak load water supply requirements, minimum road widths, clearances around structures, and geologic hazard mapping in areas of known geologic hazards." (Section 65302.1)

The effect of these sections is to require cities and counties to take seismic and other natural hazards into account in their planning programs.

The basic objectives of the Seismic Safety and Safety Elements are to identify and evaluate natural hazards confronting the City of Santa Rosa, and to recommend policies which would reduce the adverse impact of those hazards if they are realized. Specifically, these elements evaluate both primary and secondary seismic hazards, flooding, and fire. The intent of the recommended policies is to provide an opportunity to reduce the loss of life, property damage, and social and economic dislocations in the event of a major earthquake, flood, or fire.

## EXISTING CONDITIONS

### TYPES OF HAZARDS

Three basic groups of natural hazards are considered in this document: seismic, flooding and fire hazards. There are several types of seismic hazards which can be grouped in a cause-and-effect classification which is the basis for the order of their consideration. Earthquakes originate as shock waves generated by movement



along an active fault. The primary seismic hazards are ground shaking and the potential for ground rupture along the surface trace of the fault. Secondary seismic hazards result from the interaction of ground shaking with existing soil and bedrock conditions, and include liquefaction, settlement, landslides, tsunamis or "tidal waves", and seiches (oscillating waves in lakes and reservoirs).

The potentially-damaging natural events (hazards) discussed above may interact with man-made structures. If a structure is unable to accommodate the natural event, failure will occur. The potential for such failure is termed a structural hazard, and includes not only structures themselves, but also the potential for damage or injury that could occur as the result of movement of loose or inadequately restrained objects within, on, or adjacent to a structure.

Flooding hazards in Santa Rosa may be considered in two categories: natural flooding and dam inundation. Natural flooding hazards are those associated with major atmospheric events which result in the inundation of developed areas due to overflows of nearby stream courses, or inadequacies in local storm drain facilities. Dam inundation hazards are those associated with the downstream inundation which would occur given a major structural failure in a nearby water impoundment.

Fire hazards are considered in this report in two categories: wildland and urban fires. Wildland fires are those which burn primarily in undeveloped areas and result from the ignition of accumulated brush and woody material. Urban fires are those within the built-up areas of the city and primarily involve structures. Both flooding and fire terminology are discussed in detail in the Safety Element Technical Supplement.

## SUMMARY TECHNICAL CONCLUSIONS

The foundation of the Seismic Safety and Safety Elements is the technical evaluation of primary and secondary seismic hazards, flooding, and fire. These evaluations form the basis of the recommended policies and are discussed in detail in the Technical Supplement. Major conclusions from the technical analysis are as follows:

### 1. Seismic Hazards

- a. The City of Santa Rosa is located in a part of California considered seismically active.
- b. The states of activity of the major faults affecting Santa Rosa have been evaluated using available published and unpublished information. Major conclusions are:



- (1) The San Andreas Fault is active and is expected to be the source of a magnitude 8.0 to 8.5 earthquake within the next 50 to 100 years.
- (2) The Healdsburg-Rodgers Creek fault zone is active and is expected to be the source of future significant earthquakes. The analysis of magnitude and recurrence for the portion of the fault zone closest to the city yields the following results:

| <u>Recurrence Interval</u> | <u>Magnitude</u> |
|----------------------------|------------------|
| 100 years                  | 5.6              |
| 300 years                  | 6.5 to 7.0       |

- (3) Earthquakes can and will occur on other faults in the region, but their effects within the City will be less than those from events on either the San Andreas or Healdsburg-Rodgers Creek faults.
- c. Surface rupture from movement along the branches of the Healdsburg-Rodgers Creek fault zone traversing the city is considered to be a potential hazard. Under the State's Alquist-Priolo Special Studies Zones Act, there are Hazard Management Zones located along traces of the fault considered active or potentially active.
  - d. The expected 300-year earthquake along the Healdsburg portion of the Healdsburg-Rodgers Creek fault zone will cause the most severe ground shaking in terms of ground acceleration and short-period energy levels, although the risk of occurrence for this event is less than for the event along the San Andreas fault zone.
  - e. Ground shaking characteristics from the expected earthquakes will vary across the Planning Area, depending on distance from the earthquake source and geologic conditions at the site. Areas with similar ground shaking levels are shown on the Seismic Zones Map (Plate IV in the Technical Supplement).
  - f. Liquefaction and settlement are considered potential hazards in the part of the Planning Area underlain by alluvial deposits and marshlands, as delineated on Plate V of the Technical Supplement.
  - g. Landsliding is considered a significant hazard in portions of the study area. Plate VI of the Technical Supplement shows areas of relative slope instability and areas of known sliding which should be accounted for in land use planning.



- h. The effects of seiche within fluid storage tanks may be significant within the Planning Area and should be evaluated by a qualified engineer.
- i. There is potential for landslide-generated water waves in Salinger, Matanzas Creek, and Silver Shoon Ranch reservoirs, which should be evaluated further.

## 2. Fire Hazards

- a. Varying levels of risk from wildland fire exist in the outlying portions of the Santa Rosa Planning Area (see Plate I, Technical Supplement).
- b. The greatest wildland fire hazard occurs in the hilly areas of North Santa Rosa where residential development is located adjacent to heavily vegetated areas.
- c. With the recent period of rapid growth, Santa Rosa has experienced an expansion of residential development, the emergence of more industrial and commercial establishments, and the construction of several multi-story structures. The City is responding to the urban fire hazards posed by these new developments by (1) upgrading the existing fire protection organization; (2) enforcing moderately-restrictive automatic-sprinkler ordinances in new structures; and (3) enforcing Uniform Building Code (UBC) provisions related to fire protection.
- d. One of the City's most important assets in reducing fire hazard is its participation in a mutual-aid plan which can utilize the resources of all fire protection agencies in Sonoma County.

## 3. Flood Hazards

- a. The City of Santa Rosa can expect to be inundated\* in certain locations by a storm with a one percent chance of occurrence in any year (100-year storm). (See Plate II, Technical Supplement).
- b. Natural flooding will be most severe along Laguna de Santa Rosa, Windsor, and Mark West Creeks, and in the low-lying Bellevue area, County Fairgrounds area, and along U.S. Route 101.
- c. Disruption of major rail link service, local roadways and bridge crossings can be expected, with significant property damage probable if flood stages remain high for long periods of time.

---

\* The term inundated denotes an area covered with water. The depth of water can range from a few inches to several feet or more.



- d. The City is exposed to the hazard of dam inundation from potential failure of local dams in the event of a major earthquake. Probable inundation pathways of three major dams (Lake Ralphine, Matanzas Creek, and Fountain Grove) are shown on Plate II of the Technical Supplement. Inundation studies on six other major dams have not been completed at the time of this report. No structural engineering evaluations of any of the dam's abilities to withstand a major earthquake have been conducted.
- e. The City is exposed to the risk of localized inundation from structural failure of water storage tanks or failure of the earth material upon which they are constructed. These water storage tanks are located throughout the eastern half of the Planning Area, primarily in the low-lying foothill areas.

#### HAZARD DELINEATION

In order to develop policies which will reduce adverse impacts of known hazards, such hazards must be fully studied. The Technical Supplement to this element provides a detailed analysis of the hazards confronting Santa Rosa, as well as a description of the methodology used to conduct this study. The seismic, fire and flooding hazards also are delineated graphically in the Technical Supplement and included within the City's Environmental Atlas. The information generated through preparation of the Seismic Safety and Safety Elements already is being utilized daily to conduct environmental review, initial studies and to serve as a base data in the preparation of Environmental Impact Reports.

#### RISK

Given that certain natural hazards exist in Santa Rosa, it is necessary to decide whether the risks these hazards present are acceptable or whether action is necessary to reduce the level of risk. The Council on Intergovernmental Relations (CIR) defines "Risk" from natural and man-made hazards in three categories:

1. Acceptable Risk: The level of risk below which no specific action by government is deemed to be necessary.
2. Unacceptable Risk: The level of risk above which specific action by government is deemed to be necessary to protect life and property.
3. Avoidable Risk: A risk which need not be taken because individual or public goals can be achieved at the same, or less, total "cost" by other means without taking the risk.



To determine levels of acceptable risk is to provide an answer to the question "How safe is safe enough?". No environment is perfectly hazard-free. Natural and man-made hazards of some kind always are present, especially in urban environments. However, some hazards cause only minimal loss or occur so rarely that they need not be planned for at the community level. On the other hand, some events occur often enough, are large enough, and have the potential for major disruption of the community such that a community-wide response to natural hazards such as earthquakes is a public process which involves making a judgment, either explicit or implicit, about acceptable risk. Scientific expertise can determine the magnitude of the hazard and estimate the probable effects, but it cannot decide for the public how much risk to assume (or not assume by planning for loss-reduction).

The central concept used in determining levels of acceptable risk is the definition of natural events in terms of magnitude and frequency. The magnitude of an event refers to its size. Examples are the height of flood waters, the rating of an earthquake on the Richter scale, or the number of acres burned in a wildland fire. The frequency of an event refers to the number of times it occurs during a certain period of time. The relationship between magnitude and frequency is inverse. That is, the less often an event occurs, the greater is its size and potential impact. For example, rainstorms occur annually in the City of Santa Rosa, but most often they are of low magnitude and do not seriously threaten the City. However, on infrequent occasions, as in December, 1955, a storm of large magnitude passes over the city and results in a dangerous flood. A way of summarizing this idea with respect to an earthquake is that the longer it waits, the bigger it will be.\*

The magnitude-frequency concept is involved in decisions regarding acceptable risk in that the community must judge what magnitude event should be planned for. That judgment is based on the frequency or recurrence interval of the hazardous event. A description of the magnitude and other characteristics of the event are developed through a technical analysis. This information allows planners and engineers to develop loss-reduction measures and to design structures to provide protection up to the level of acceptable risk. In this sense, the magnitude earthquake or flood used in defining acceptable risk may be thought of as a "design earthquake" or "design flood".

The determination of acceptable risk from hazardous events also involves differentiating among man-made structures according to their potential effect on the loss of life and their importance in terms of emergency response and continued community functioning.

---

\* There is one important difference between flooding and earthquakes, however. Flooding is the result of a random combination of meteorological events, whereas current geologic theory indicates that the build-up of strain along a particular fault system is nearly constant, and the periodic release of that strain in the form of an earthquake is apt to be regular.



In the hours immediately following the 1971 San Fernando earthquake in Southern California, emergency services were impaired by damage to police and fire stations, communication networks and utility lines. A number of major hospitals in the area were damaged seriously and were unable to continue functioning at the time they were needed most. These facilities and others are vital to the community's ability to respond to a major disaster and to minimize loss of life and property. The experience in San Fernando emphasizes the need to provide these "critical facilities" with a higher level of protection from earthquakes than non-critical structures. As a minimum, all structures which could have a significant effect on the loss of life should be designed to remain standing in the event of a major earthquake, even if rendered useless. "Critical facilities", on the other hand, should not only remain standing, but should be able to operate at peak efficiency in the event of a disaster.

Designing a building to this higher level of seismic safety entails not only a stronger structure, but also greater attention to non-structural items such as elevators, lighting, and storage facilities.

Deciding which types of facilities are to be considered critical and non-critical is part of the public decision on acceptable risk. Tables 1 and 2 present the recommended categorization of buildings and design earthquakes for those categories.

TABLE 1  
TAXONOMY OF CRITICAL FACILITIES

| <u>Category</u>                  | <u>Facility/Activity</u>                                                                                                                                                                                                                |
|----------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Critical: Emergency Response     | Hospitals, fire stations, police stations, civil defense head quarters, gas, electric, water "lifelines", ambulance services, emergency broadcast services, power plants, sewage treatment plants, certain bridges.                     |
| Critical: Non-Emergency Response | Schools, theaters, auditoriums, utility sub-stations, major highway bridges, or grade crossings, libraries (if used for civil defense shelters), public assembly facilities with a capacity of 100 or more, including outdoor stadiums. |
| Non-Critical Facilities:         | All facilities not listed above.                                                                                                                                                                                                        |

This table should be used as a guide in assigning structures to the various categories. It can be tailored to the specific needs of the City after the public hearings and reviews have taken place.



TABLE 2  
ACCEPTABLE RISK LEVELS FOR SEISMIC SAFETY

| <u>Facility/Activity</u>         | <u>Design Level</u> | <u>Design Earthquake*</u>                                               |
|----------------------------------|---------------------|-------------------------------------------------------------------------|
| Critical: Emergency Response     | Functional          | 6.5-7.0 Healdsburg-Rodgers Creek fault and<br>8.0-8.5 San Andreas fault |
| Critical: Non-emergency Response | Non-collapse        | 6.5-7.0 Healdsburg-Rodgers Creek fault and<br>8.0-8.5 San Andreas fault |
| Non-critical                     | Non-collapse        | 8.0-8.5 San Andreas fault                                               |

\* Earthquake magnitudes are based on the Richter Scale.

With respect to flood hazards, the magnitude event recommended as the basis for natural flood control and floodplain planning and management is the 100-year flood. The 100-year flood is almost universally accepted by federal and state agencies involved with flood control as the basis for describing flood hazards and establishing flood insurance and other programs. Sufficient data are not available at this time to recommend specific planning criteria relative to dam inundation. State-mandated dam inundation maps for six of the nine dams in the study area have not been completed. These studies should provide a quantitative evaluation of this potential hazard. The existing studies for Lake Ralphine, Matanzas Creek, and Fountain Grove show the size of the area which would be inundated and the time it would take flood waters to reach certain areas of the city. As a minimum, emergency-response critical facilities should be located outside the areas of inundation.

The planning criteria for wildland fire hazards are the risk ratings described in the Technical Supplement and delineated on Plate I. This rating system is not accepted as widely as the 100-year flood criteria, but is similar in approach to other techniques being developed by agencies such as the California Division of Forestry. Urban fire hazards are more difficult to evaluate on an areal basis, and it is recommended that building-by-building evaluations be continued under the City's Resolution 9820.

### OBJECTIVES AND POLICIES

In this section, recommendations are presented which encompass objectives and policies and specific planning actions pertaining to hazard reduction.

#### OBJECTIVES

The objectives for minimizing the destructive effects of hazardous natural events in the City of Santa Rosa are:



1. TO MINIMIZE INJURY AND LOSS OF LIFE.
2. TO MINIMIZE DAMAGE TO PUBLIC AND PRIVATE PROPERTY.
3. TO MINIMIZE SOCIAL AND ECONOMIC DISLOCATIONS RESULTING FROM INJURIES, LOSS OF LIFE, AND PROPERTY DAMAGE.

### POLICIES

The following policies contain programs and actions available to the City for reduction of natural hazards.

#### Policy 1

Continue to provide for the identification and evaluation of existing structural hazards (Resolution 9820), and abate those hazards to acceptable levels of risk.

- 1.1 Structures within the Planning Area should continue to be inspected by qualified engineers for conformance with the City's Building Code section on earthquake regulations (see item 2.1). Inspections should be conducted according to the priorities shown in Table 3. These priorities are based on two criteria: (1) the facility type; and (2) the age of the building with respect to improvements in seismic design requirements in building laws. The significance of the year 1958, for example, is that before then only general seismic design criteria were contained in the Uniform Building Code. In later years, additional important factors were added to the UBC. Structures built prior to 1958, especially larger commercial structures, are more likely to be significantly-less earthquake resistant than those built in 1958 or later.

It also is recommended that, within each inspection priority group, publicly-owned structures be inspected ahead of private structures. Specific inspection criteria should be established by qualified structural engineers, using as a guide the ground motion data contained in the Seismic Safety Technical Supplement.

TABLE 3  
STRUCTURAL INSPECTION SEQUENCE MATRIX

(Numbers show the order in which structures should be inspected for seismic safety.)

| <u>FACILITY TYPE</u>   | <u>BEFORE 1958 UBC</u> | <u>1958 AFTER UBC, BUT BEFORE NEW UBC</u> |
|------------------------|------------------------|-------------------------------------------|
| CRITICAL:              |                        |                                           |
| EMERGENCY RESPONSE     | 1                      | 2                                         |
| CRITICAL:              |                        |                                           |
| NON-EMERGENCY RESPONSE | 3                      | 4                                         |
| NON-CRITICAL           | 5                      | 6                                         |



A high priority should be placed on evaluating the seismic vulnerability of facilities which handle explosive, flammable, or toxic materials.

- 1.2 Caltrans should review its facilities and roadways within the study area to determine the potential impact of expected earthquakes and floods, and should forward comments to the City. The Circulation Element of the General Plan and potential evacuation routes should be revised, if necessary.
- 1.3 Northwestern Pacific Railroad Company should review its lines and yards within the study area to determine the potential impact of the expected earthquakes, and should forward comments to the City. The Circulation Element of the General Plan should be revised, if necessary.
- 1.4 The Pacific Gas and Electric Company should review its facilities and distribution/transformation networks and centers to determine the potential impact of expected earthquakes, and should forward comments to the City. P. G. and E. also should review its gas and power lines for potential fire hazards.
- 1.5 All of the nine major dams in the study area should be inspected by qualified structural engineers to determine their ability to withstand the ground-shaking criteria presented in the Seismic Safety Technical Supplement.
- 1.6 The Santa Rosa Fire Department should continue its inspection program to identify fire hazards within their jurisdiction. Rigid inspection standards for off-road vehicles (muffler and spark arrester controls) also should be established, and the use of off-road vehicles during periods of high fire danger should be controlled.
- 1.7 Structures identified under Resolution 9820, as not conforming to amended earthquake standards or as hazardous in terms of fire or flooding, should be brought into conformance with acceptable levels of risk by programs including, but not limited to, structural rehabilitation, occupancy reduction, and demolition and reconstruction.
- 1.8 The City should advocate the expansion of state and federal relocation assistance funds and programs to aid persons and businesses displaced from hazardous buildings.

## Policy 2

Ensure that all new construction in the City is designed to withstand natural hazards to acceptable levels of risk.

- 2.1 Using the geological and acceptable risk data provided in the Seismic Safety Element, the City's Building Code should be reviewed by the Chief Building Official to determine if



earthquake regulations more stringent than those instituted in 1969 are necessary. Modification of the present code should take place after completion of the Applied Technology Council's ATC-3 research. It should be noted that the expected ground acceleration in the event of a 6.5-7.0 earthquake on the Healdsburg-Rodgers Creek fault significantly exceeds the requirements of the 1976 Uniform Building Code (0.26g). Evaluation of the lateral force requirements of the UBC should be included as the central part of revisions of the City's earthquake regulations.

### Policy 3

Regulate land use in areas of significant natural hazard.

- 3.1 The City should continue to enforce the Alquist-Priolo special studies zones act and establish a Hazard Management Zone (HMZ) along the trace of the Healdsburg-Rodgers Creek fault. The HMZ should extend 1/8 mile (660 feet) on both sides of the fault trace. No development should be permitted in the HMZ until a detailed geologic evaluation of the surface rupture potential of the fault is completed, and adequate building setbacks from the fault are established. The detailed geologic investigation can be left to each individual developer, or it can be handled on a community-wide basis with the City bearing the costs. These costs can be recovered at a later date through a special tax assessment district or by increasing permit fees in the area.
- 3.2 Any development in areas of high, moderately-high, or moderate landslide risk or in areas of active sliding should be required to conduct detailed slope stability investigations at the site level.
- 3.3 Critical facilities should not be permitted to locate in areas of liquefaction potential. Non-critical facilities should not be permitted in areas of potential liquefaction without first conducting a detailed site investigation which addresses the potentials for liquefaction and settlement, and also using as a guide the groundshaking data provided in the Technical Supplement.
- 3.4 Critical facilities should be discouraged from locating within the 100-year flood plain and the areas of potential dam inundation. Non-critical facilities should be allowed to locate in potential flood areas only if the facilities are elevated or floodproofed to the level of the base flood.
- 3.5 Development should not be permitted to locate in high or medium fire hazard areas without an investigation of the development's vulnerability to fire and its potential as a source of ignition. Untreated wood shake roofs should be prohibited in areas of high fire hazard.



#### Policy 4

Provide for more detailed scientific analyses of natural hazards in the study area.

- 4.1 Provide for a detailed field study of the Healdsburg-Rodgers Creek HMZ, including sub-surface trenching, to provide a more refined evaluation of the surface rupture potential of the fault.
- 4.2 Require site-by-site soils and geologic engineering studies for proposed developments in areas of moderate to high landslide risk to assess natural and graded slope stability. Slope stability calculations should incorporate the ground-shaking parameters presented in the Technical Supplement.
- 4.3 Require site-by-site soils and geologic engineering studies in areas of potential liquefaction and settlement, and evaluate these potential hazards using the groundshaking parameters presented in the Technical Supplement.
- 4.4 Institute a building or strong-motion instrumentation program for buildings over four (4) stories in height, if such buildings are anticipated.
- 4.5 Encourage the early completion of dam inundation studies for the following dams in the study area: Santa Rosa Creek, Piner Creek, Silver Shoon Ranch, Salinger, Middle Fork Brush Creek, and Annadel No. 1. These structures also should be investigated for their ability to withstand the earthquakes which can be expected in the Planning Area.
- 4.6 The ability of the thirteen existing and two proposed water storage facilities to withstand a major seismic event on either the San Andreas or Healdsburg-Rodgers Creek fault should be evaluated by qualified engineers.
- 4.7 The potential for landslide-generated water waves should be evaluated in detail for Salinger, Matanzas Creek and Silver Shoon Ranch Reservoirs.

#### Policy 5

Conduct a public awareness program in the nature and extent of natural hazards in the Planning Area and in ways of minimizing the effects of natural disasters.

- 5.1 Work with the State Office of Emergency Services to develop an information release program to familiarize the citizens of Santa Rosa with the Seismic and Safety Elements. Special attention should be afforded to those groups particularly susceptible to seismic, fire, and flooding hazards including, but not limited to, school districts, agencies involved with the aged, and agencies involved with handicapped persons. These agencies should be encouraged to develop educational programs of their own relation to hazard awareness. The



conclusions and recommendations of these elements also should be provided to land developers and those involved in the real estate profession. Appendix B of the Technical Supplement provides a list of earthquake safety procedures.

- 5.2 Establish community programs which train volunteers to assist police, fire and civil defense personnel during and after a major earthquake, fire or flood.
- 5.3 Work with the school districts and State Office of Emergency Services to initiate education programs in lower grades using displays and demonstrations which would expose younger children to the nature and strength of fire. Such programs would tend to replace their natural curiosity with a sense of respect.
- 5.4 Support or sponsor exhibits and presentations in secondary schools which demonstrate the more involved aspects of fire dynamics, i.e., major contributing factors to fire hazard and the relationship of fire to the natural ecology. Encourage parental cooperation and assistance in overall fire education programs.

#### Policy 6

Provide for the maintenance and upgrading of disaster response plans.

- 6.1 The California Emergency Services Act requires each city in the state to prepare and maintain an Emergency Plan for both wartime and peacetime emergencies. Among the peacetime emergencies considered in the plan are earthquakes, fires, and floods. Accordingly, the Seismic Safety and Safety Elements provide important input to the Emergency Plan in that these Elements provide estimates of the magnitude of emergencies which can be expected. The City's Emergency Plan should be reviewed and the data and recommendations of these Elements incorporated into it.
- 6.2 The Emergency Plan relies to a certain extent on mutual aid agreements to respond to a large scale disaster. It is likely, however, that in the event of a major earthquake in Northern California, many cities and hundreds of thousands of people will be affected severely. The efforts of both federal and state emergency services will be over-extended severely. It is advisable, then, that the City of Santa Rosa be prepared to maintain continued functioning of necessary services rather than to expect aid from outside organizations.
- 6.3 The City should conduct periodic earthquake, fire, and flooding emergency drills. These drills should be coordinated on a regional basis in cooperation with all involved jurisdictions.



## Policy 7

Provide for review and upgrading of the Seismic Safety and Safety Elements.

- 7.1 Upon adoption of the Seismic Safety and Safety Elements, a review committee should be established to oversee the implementation of the Elements and to advise the City Council of progress towards implementation. This committee should be composed at least of the Director of Community Development, his designated representative and one representative each from the Public Works Department, the Police Department and the Fire Department.
- 7.2 The Seismic Safety and Safety Elements should be reviewed by the Planning Commission annually and should be comprehensively revised every five years or whenever substantially new technical information becomes available.











## INTRODUCTION

The Noise Element provides the basis for a comprehensive program to control and abate environmental noise, and to protect residents from excessive exposure to it.

The Noise Element is related most closely to the Circulation, Land Use, and Housing Elements, since it provides noise level standards related to the compatibility of land uses, particularly residential uses, with various transportation modes. Noise level standards thus can be the decisive factor in locating transportation facilities (or their design) in relation to existing or planned land uses. Consideration should be given to the adverse effects of noise on activities taking place both in the out-of-doors and in structures not insulated against sound. The Noise Element also is closely related to the Open Space Element, since noise can affect adversely the enjoyment of quiet pursuits in open space and natural areas. Conversely, open space can be employed to buffer noise sources from sensitive uses through proper placement of open space areas and extensive tree planting.

The key feature of the Noise Element is the quantification of the community noise environment in terms of noise exposure contours for both existing and projected transportation activities. This information becomes the guideline for use in the development of the Land Use Element, in the administration of local environmental review and design review procedures, and in determining compliance with the State's Noise Insulation Standards.

Noise by definition is any unwanted sound, and may be considered as having an adverse effect on the environment. Consequently, the issue of noise often is considered in conducting environmental assessments. State Noise Element guidelines discuss the following impacts.

Social Impacts: Excessive noise is socially disruptive, and may be physically and psychologically damaging.

Economic Impacts: Excessive noise adversely affects property values and levels of productivity. In the past the costs of excessive noise from transportation facilities have been passed on to those in the vicinity rather than being borne by the producer of the noise.

The sounds of noise can be measured by a noise meter, which reads in "decibels" (abbreviated dB). (See Glossary at the end of this Element for explanation of technical words.) The effects of noise on health are both physiological and psychological, though primarily psychological. However, it seems unlikely that many people have suffered in this way from highway-generated noise. Psychologically, the effects are more widespread.

1. Noise can interfere with speech communications and the perception of other auditory signals.
2. Noise can disturb sleep and relaxation.



3. Noise can interfere with an individual's ability to perform complicated tasks.
4. Noise can be a source of annoyance, can influence mood, and can otherwise detract from the quality of life.

Techniques for reducing the effects of noise are of two types: Administrative techniques which can be used by local government officials to require or encourage improved noise compatibility; and, the physical methods which are available to architects, developers and builders for achieving the desired noise impact reduction.

At the present time, federal, state and city governmental agencies address the noise problem from three perspectives.

1. Vehicle Control

This involves noise emission reduction from vehicle engines, mufflers, and tires. The federal government virtually has preempted this general area of noise reduction, conducting research on noise attenuation and drafting legislation regarding maximum permissible vehicle noise. Existing California Vehicle Code muffler regulations which prohibit loud motor vehicle noise of all kinds currently are enforced by the Santa Rosa Police Department and the Highway Patrol.

2. Roadway Control

This involves the actual design of the roadway itself, such as surfacing materials, landscaping and highway noise barriers. This approach has been preempted so far by the federal and state governments for freeways and highways, but the possibility exists that municipal government can utilize similar roadway construction concepts and techniques.

3. Site Control

This traditionally is an area of local governmental responsibility as such is the primary interest of Santa Rosa's Noise Element. At the present time, Santa Rosa seeks to control noise in the following manner:

- a. Environmental Review

The City is responsible for preparing and evaluating Environmental Impact Reports on developments which may be noise generators or noise receivers. Where noise is an issue, measures are proposed which are designed to mitigate or minimize the noise impacts.

- b. Design Review

The City's Design Review Board also considers noise impacts as they relate to site planning and building design. This is called "acoustical site planning" and involves such techniques as orientation of the building on the site; placement of windows, doors and patios; choice of construction materials; and screening, berming and landscaping.



c. Land Use Regulation

General Plan Amendments and zoning actions are used by the Planning Commission and City Council to regulate land use in Santa Rosa. This is the primary method of discouraging the development of noise sensitive land uses in noise-impacted areas, the main thrust of the Noise Element.

d. Noise Insulation Standards

Title 25 of the California Administrative Code requires that residential structures located in excessive noise exposure areas (areas within the 60 dB noise level contour) shall be designed to prevent the intrusion of exterior noises beyond prescribed interior levels (generally, 45 dB in any habitable room). This law currently is administered by the Santa Rosa Department of Community Development, Building and Code Compliance.

e. Santa Rosa Noise Ordinance

Although not primarily concerned with noise emissions from major transportation facilities, the City's Noise Ordinance does "prohibit unnecessary, excessive and annoying noises from all sources subject to its police power." The Noise Ordinance currently is enforced by the City's Zoning Officer and the Santa Rosa Police Department.

#### COMMUNITY NOISE ENVIRONMENT

Santa Rosa's noise environment is quantified in terms of noise exposure contours for existing and forecasted transportation activities. Major stationary noise sources also are discussed. Sources of environmental noise which are considered include:

1. U.S. 101 freeway and State Highway 12
2. Planning Area expressways and major streets (as depicted in the Circulation Element)
3. Railroad line operations within the Planning Area
4. Sonoma County Airport and Santa Rosa Air Center
5. Local industrial plants
6. Other noise sources.

The transportation noise exposure information is presented in terms of noise contours expressed, where possible, according to the day-night average level (Ldn). Noise forecasts provided by the State Department of Transportation and the Sonoma County Airport are presented in other standard terms. It should be emphasized that the noise contour information which follows merely indicates areas of minimum unacceptability. More severe noise exposures may exist within these contour areas, and for this reason, additional noise analysis may be warranted for individual area studies and developments.



## 1. U.S. 101 Freeway and State Highway 12

In compliance with State law, the California Department of Transportation has prepared a series of detailed noise contour maps for the Santa Rosa Planning Area which show existing (1973) and predicted (1995) noise levels along U.S. 101 Freeway and State Highway 12. A complete set (10 maps) of these large scale maps is on display in the Santa Rosa Department of Community Development.

Sheet No. 4 (U.S. 101-State 12 interchange area) from the series has been reduced photographically and inserted as Figure 1. It is an example of the contour detail which is available. It also presents the methodology involved in the Caltrans noise contour mapping program. Another map (Figure 2) has been prepared which graphically summarizes, according to a selected noise contour, all of the Caltrans maps for the entire Planning Area. Note that Caltrans indicates 65 dB as the maximum acceptable noise level.

Based on information presented on the noise contour maps, areas generally within 200-400 feet from the edge of the freeways or highways are impacted adversely by existing noise levels, with elevated freeways generating somewhat less noise than surface-level freeways. In other words, for all practical purposes, areas within a city block of the roadways experience some noise pollution. Projected noise levels (for the year 1995) show a somewhat larger area of noise impaction; areas within 400-600 feet from the edge of the freeway will experience adverse noise levels.

## 2. Expressways and Major Streets

The State Department of Health has developed a traffic noise procedure which will provide an estimate of the Ldn noise exposure value at a defined distance from the roadway given typical vehicle flow volumes expressed in terms of average daily traffic (ADT). Utilizing the nomogram provided by the State (see Appendix A), in conjunction with present and forecasted ADT volumes as shown in the Circulation Element, it is possible to develop noise exposure contours for all of the existing and proposed expressways and major streets in the Planning Area.

This information has been summarized on a single map which depicts the 60 dB noise contour (expressed in terms of Ldn) for the entire 30-mile network of expressways and major streets. The 60 dB contour represents the minimum acceptable noise level for a residential living environment according to the State. Figure 3 shows those expressways and major streets which are now or will be noise impacted, i.e., roadways whose adjacent properties are now or will be within the 60 dB noise contour.





NOTES:

1. Methods used to determine contours are based on federally approved methods —  

|           |                                                                   |
|-----------|-------------------------------------------------------------------|
| Reference | a) National Cooperative Highway Research Report No. 117           |
|           | b) FHWA Department of Transportation Report No. DOT-TSC-FHWA-72-2 |
2. Contours shown are values given in decibels (A scale) exceeded 10% of the time (L<sub>10</sub>).
3. Traffic volumes for existing conditions are based on 1973 status and most recent truck count. Traffic volumes for future traffic prediction are based on 1995 demand values.
4. Attenuation not considered for buildings, walls or other structures outside the highway R/W. Variations due to local traffic noises emanating from outside the highway right of way are also not considered.
5. Contours are subject to a range of  $\pm 3\text{dBA}$ .
6. Contours pursuant to section 65302(g) of California State Government Code.

Noise Contours for City of Santa Rosa

- |           |                               |
|-----------|-------------------------------|
| —————     | Existing Noise Levels         |
| - - - - - | Predicted Noise Levels (1995) |

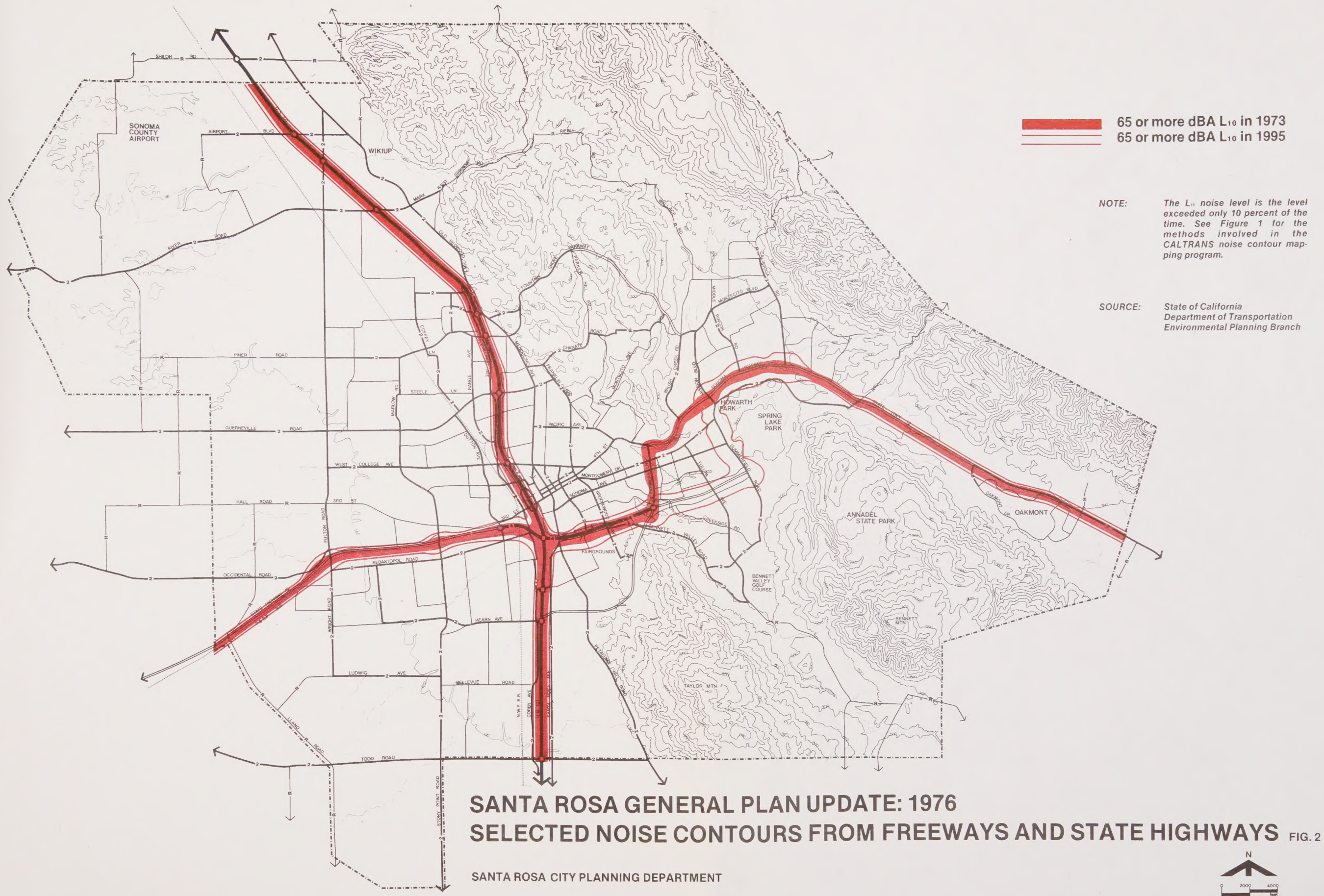
State of California  
Department of Transportation  
District 4  
Environmental Planning Branch

**SANTA ROSA GENERAL PLAN  
UPDATE: 1976  
EXAMPLE OF CALTRANS  
NOISE CONTOUR MAP**





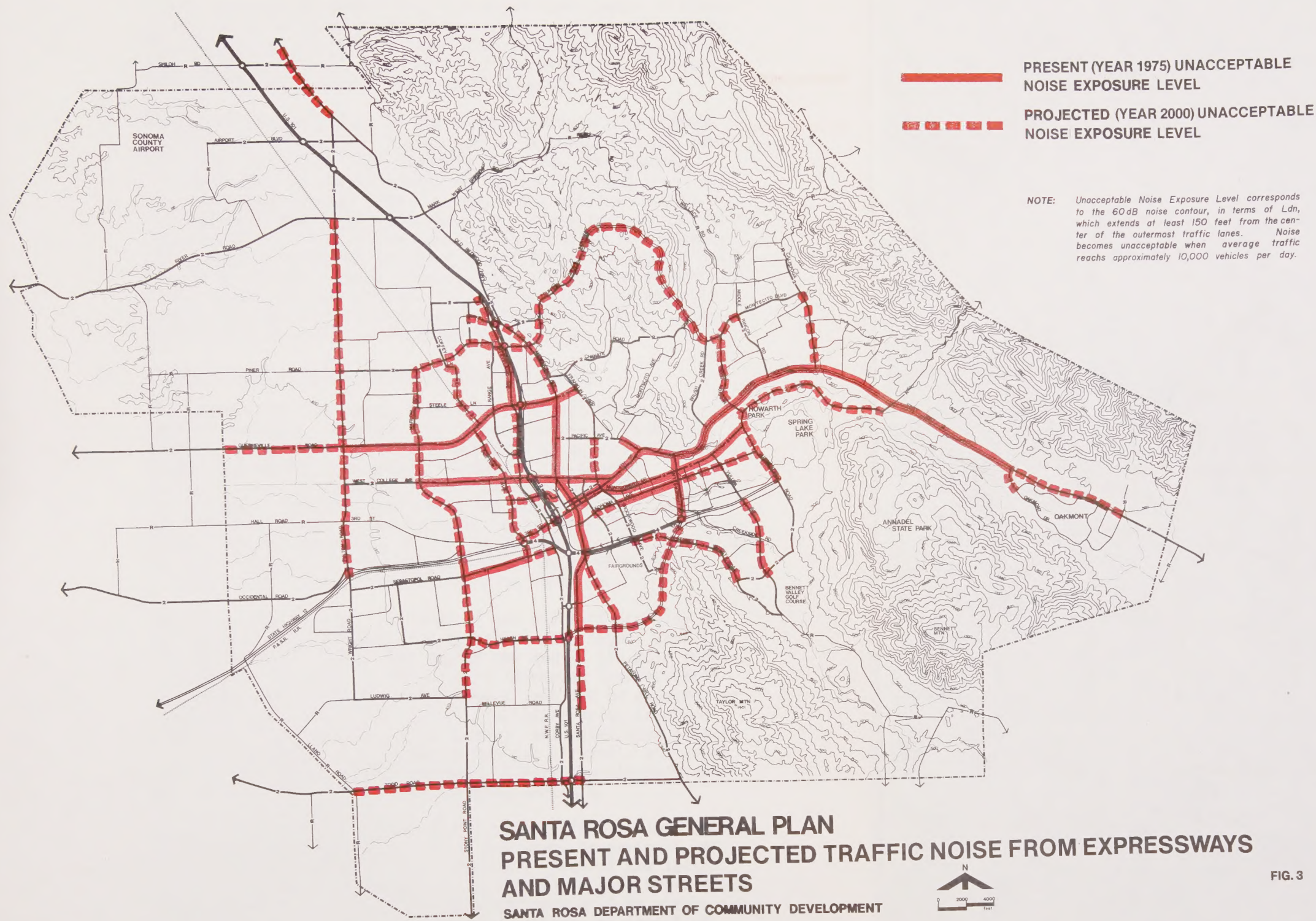


















### 3. Railroad Line Operations

A procedure also has been developed for estimating the noise impact of railroad line operations in terms of Ldn. The procedure consists of determining the equivalent number of operations, which is equal to the actual number which occur during the daytime period, plus 10 times the number occurring during the nighttime period. The factor of 10 relates to increased noise sensitivity during the nighttime period.

Railroad line operations in the Planning Area are extremely variable on a day-to-day basis, but are estimated at the present time to average four operations per day (two daytime, two nighttime) on the Northwestern Pacific Railroad Line, and two operations per day (one daytime, one nighttime) on the Petaluma and Santa Rosa Railroad Line. Operations in the future are projected to remain the same, or to diminish in frequency. Utilizing the nomograph provided by the State (see Appendix B), the 60 dB contour extends approximately 320 feet on either side of the track for the Northwestern Pacific line, and approximately 220 feet for the Petaluma and Santa Rosa line. These 60 dB noise contours are depicted on Figure 4.

### 4. Sonoma County Airport and Santa Rosa Air Center

The primary role of Sonoma County Airport will be to serve general aviation. However, the Sonoma County-San Francisco commuter air carrier service is expected to grow, and increased demand may result in commuter flights to Los Angeles. Usage of the airport by nonscheduled air carrier aircraft is expected to increase. Aircraft operations (an operation is either a take-off or a landing) are expected to increase from a recorded 147,007 annual operations in 1974 to 380,000 in 1985 and 620,000 by 1995. These projected operations can be graphically expressed in the form of forecasted noise contours.

Because of the present low level of jet aircraft activity at the Sonoma County Airport, the existing noise impact area (30 NEF) only extends 3,000 feet beyond the end of the main runway. As the activity level at the airport increases (particularly in the jet category), the noise impact area may be expected to increase, as depicted in Figure 5, "Ultimate Noise Exposure Forecast". The ultimate noise forecast was based upon a daily aircraft arrival mix of 14 two-engine jet aircraft, six four-engine propeller aircraft, 40 heavy twin-engine aircraft, and 240 single-engine or light twin-engine aircraft.

Most of the area within this 30 NEF contour (the minimum acceptable standard for noise sensitive land uses) is agricultural, vacant, or very low-density residential. Most of the latter is located north of the airport, in the Reiman Lane-Starr Road-Oak Way area. It is expected that this area will be within the ultimate 30 NEF contour, gradually increasing the impact of noise on these residences.





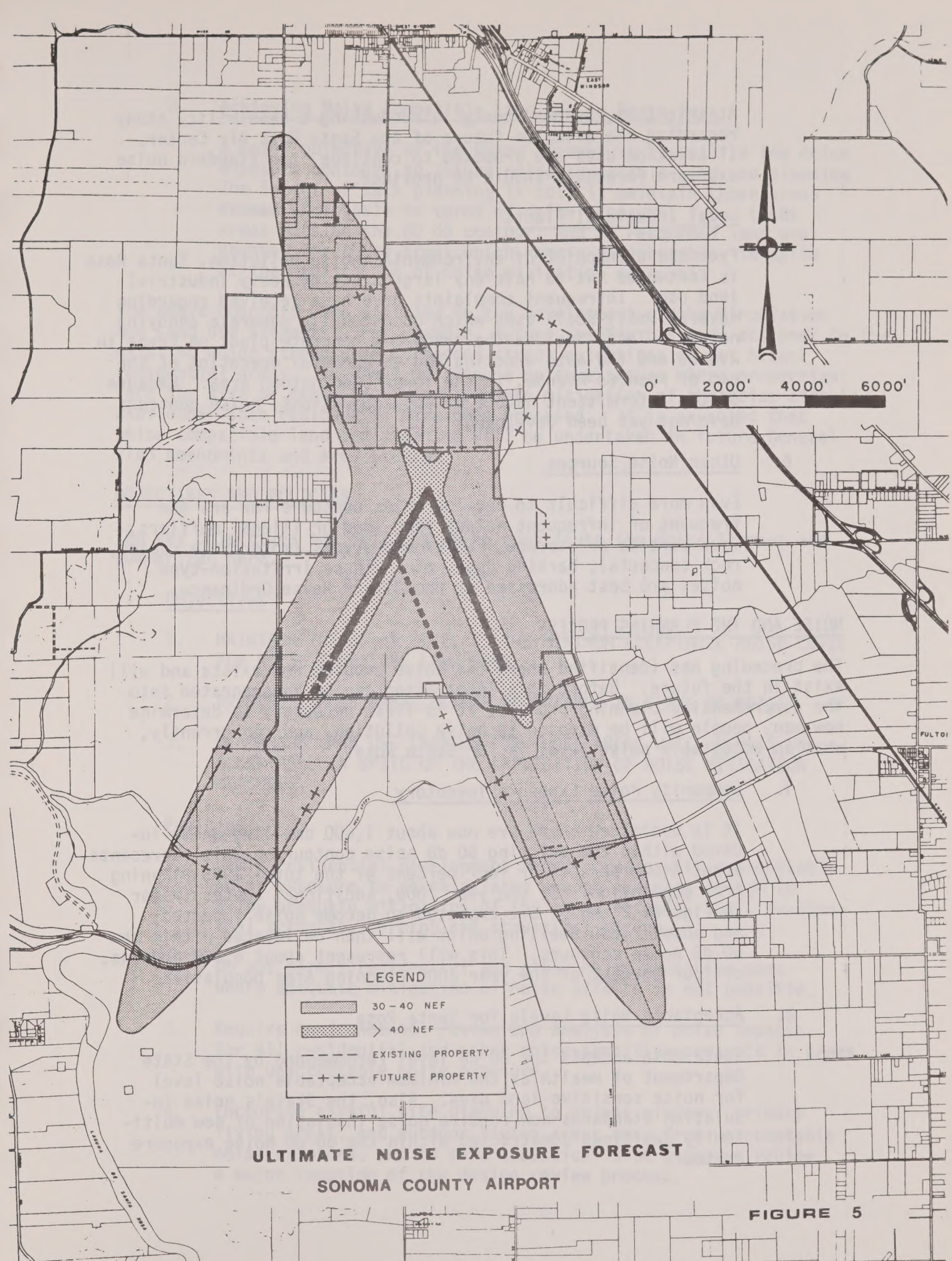














At this time, Sonoma County is conducting a feasibility study regarding the aviation future of the Santa Rosa Air Center. If aviation uses are proposed to continue, the standard noise exposure forecasts should be provided.

#### 5. Local Industrial Plants

From the standpoint of environmental noise pollution, Santa Rosa is fortunate not to have any large areas of heavy industrial land use. Infrequent complaints have been received regarding several small-scale uses which occasionally generate annoying noises. These include the ready-mix concrete plant on Franklin Avenue and the auto wrecking and scrap metal operation at the end of Frances Avenue, in the lower Coddington area. Because of the intermittent nature of such operations, noise contours have not yet been developed.

#### 6. Other Noise Sources

Even more difficult to develop noise contours for are the frequent or infrequent noises from loud or illegal mufflers, loud parties or stereos, Fairground events (motorcycle racing, rock concerts), barking dogs, etc. These irritation-type noises are best addressed by the City's Noise Ordinance.

### NOISE AND THE PLANNING PROCESS

The preceding has identified where the noise problem now exists and will exist in the future. Before this information can be incorporated into the comprehensive planning process, it is first necessary to determine how many people will be exposed to noise pollution, and concurrently, what an acceptable noise level is for Santa Rosa.

#### 1. Community Noise Exposure Inventory

It is estimated there are now about 1,600 dwelling units located within the existing 60 dB noise contours. This represents about 4,000 persons or four percent of the total 1975 Planning Area population. By the year 2000, additional routes (refer to Figures 2 and 3) are expected to become noise impacted, and about 2,600 dwelling units will then be located within the 60 dB noise contours. This will represent about 6,500 persons, or four percent of the year 2000 Planning Area population.

#### 2. Acceptable Noise Levels for Santa Rosa

Santa Rosa accepts the 60 dB level recommended by the State Department of Health as the minimum acceptable noise level for noise sensitive land uses. Also, the State's noise insulation standards now require noise insulation of new multi-family dwellings constructed within the 60 dB noise exposure contour.



### 3. Achieving Noise Compatible Land Use in Santa Rosa

A major objective of the Noise Element is to utilize the noise exposure contours to insure noise compatible land use planning. The intent of such planning is to: 1) maintain those areas deemed acceptable in terms of noise exposure, i.e., those areas outside the 60 dB contour; and 2) recommend land use changes for those areas which remain unacceptable, in spite of the application of noise mitigation measures.

The above concepts were utilized in the development of the Circulation and Land Use Elements. For example, future traffic has been assigned to the existing major street grid; proposed street extensions do not bisect residential areas. In areas of intense noise exposure where properties lack the size or depth to achieve on-site mitigation of the noise effects, uses other than residential have been proposed. It is expected that noise compatible land use planning will be undertaken in future General Plan amendments and area studies.

#### OBJECTIVES AND POLICIES

The key objectives and policies which constitute the Noise Element are summarized here.

##### Objectives

1. MAINTAIN THE 60 dB LEVEL AS THE MINIMUM ACCEPTABLE NOISE LEVEL FOR NOISE SENSITIVE LAND USES.
2. PRESERVE THOSE AREAS DEEMED ACCEPTABLE IN TERMS OF NOISE.
3. RECOMMEND LAND USE CHANGES FOR THOSE AREAS WHICH REMAIN UNACCEPTABLE IN SPITE OF THE APPLICATION OF NOISE MITIGATION MEASURES.

##### Policies

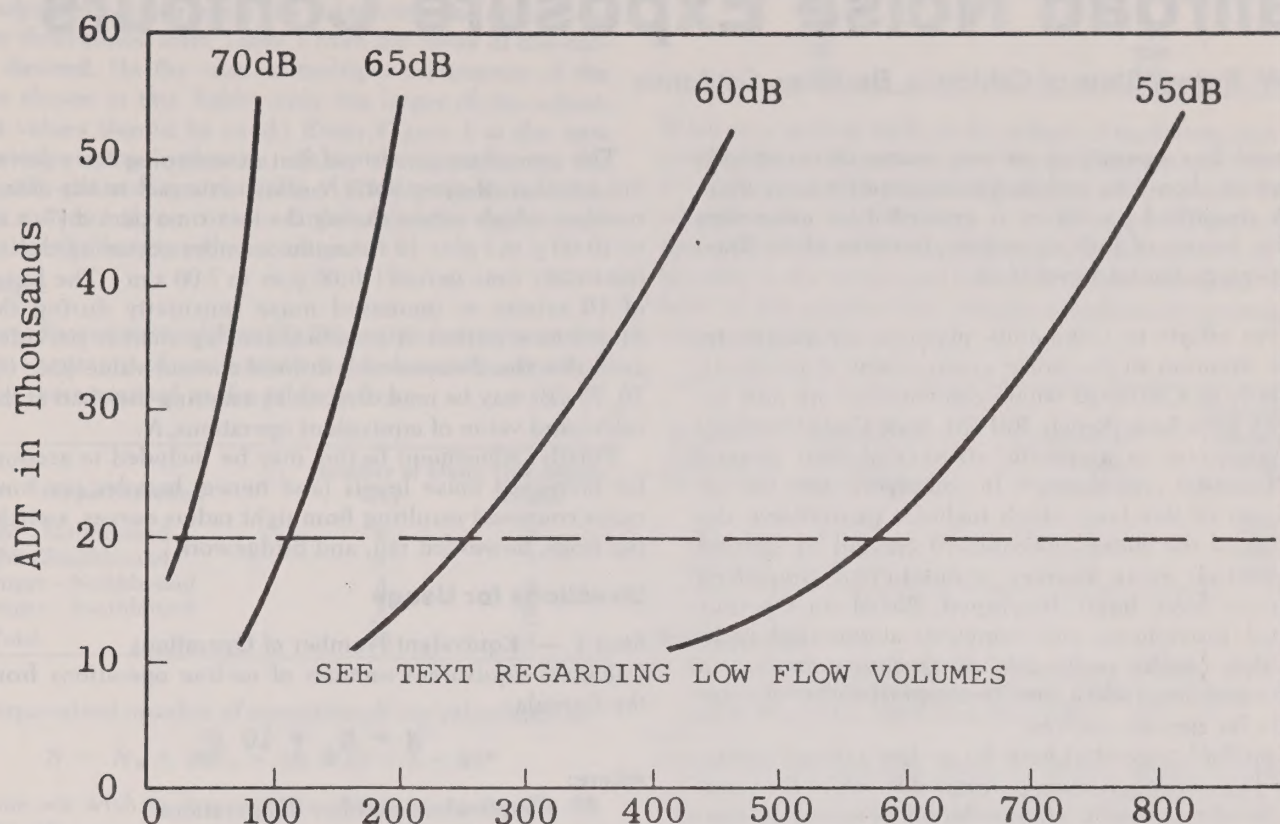
1. Limit residential development along streets with unacceptable noise exposure to parcels large enough and deep enough to allow adequate mitigation of the noise effects, e.g., substantial setbacks, berming and acoustical siting.
2. Do not permit residential and other noise-sensitive uses where adequate mitigation of noise effects is not possible.
3. Require environmental review and analysis of noise impacts for all residential and other noise-sensitive projects in areas with unacceptable noise exposure.
4. Encourage careful site planning to orient windows, primary living areas, and outdoor living areas away from unacceptable noise exposure, and to make acoustical site planning review a major function of the design review process.



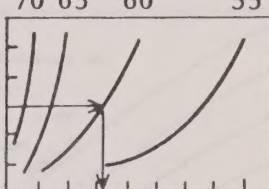
5. Use the Noise Element as the guideline for determining compliance with the State's Noise Insulation Standards.
6. Require analysis of noise impacts for all proposed speed limit increases, and street extensions and/or widenings.
7. Maintain agricultural uses in noise-impacted areas north and south of the Sonoma County Airport.
8. Incorporate frontage roads as noise buffer zones into the design of major arterial streets, wherever possible.
9. Increase enforcement of the Santa Rosa Noise Ordinance.
10. Increase enforcement of the California Vehicle Code muffler regulations.
11. Pursue various approaches and methods leading to the eventual abatement of non-conforming industrial uses which generate annoying noise to nearby residential areas.
12. Pursue various approaches and methods leading to the eventual abatement of residential structures located in severe noise exposure areas (areas within the 75 dB noise contour).



# APPENDIX A



Distance to Noise Contour in Feet  
(Measured from Center of Outermost Traffic Lane)

| L <sub>dn</sub> Noise Contours for Low Speed Arterials |              |                                                                                                                                            |
|--------------------------------------------------------|--------------|--------------------------------------------------------------------------------------------------------------------------------------------|
| Traffic Flow Parameters                                |              | Example                                                                                                                                    |
| Day Night Split:                                       | 87% - 13%    |  <p>ADT = 30,000<br/>yields:<br/>60dB at 330 feet</p> |
| Percent Heavy Trucks:                                  | 4%           |                                                                                                                                            |
| Typical Speeds:                                        | 35-45 mph    |                                                                                                                                            |
| Roadway Configuration:                                 | 2 or 4 lanes |                                                                                                                                            |

TRAFFIC NOISE NOMOGRAM FOR LOW SPEED ARTERIALS



# Simplified Procedure for Developing Railroad Noise Exposure Contours

Jack W. Swing, State of California, Berkeley, California

Railroad line operations are one source of community noise which should be included in community noise planning. A simplified procedure is presented for estimating the noise impact of such operations, in terms of the Day-Night Average Sound Level ( $L_{dn}$ ).

Current efforts in community planning are paying increased attention to the noise environment of residents, particularly in California where communities are now required by State Law [Senate Bill 691, State Code 65302(g)] to include noise as a specific element of their general plans. To assist city planners in complying with the requirements of this law, which includes quantitative descriptions of the noise environment created by ground transportation noise sources, a number of simplified nomograms have been developed. Based on rigorous analytical procedures and computer augmented techniques they can be easily used by persons untrained in acoustics and they yield a good first approximation of noise exposure for specific sources.

The method presented here for on-line railroad operations is derived from a study performed by Wyle Research for the Southern Pacific Transportation Company in conjunction with the Atchison Topeka and Santa Fe and Union Pacific Railway Companies and the Association of American Railroads.<sup>1</sup>

This method presents a simplified procedure for the estimation of noise impact created by on-line railroad operations in terms of Day-Night Average Level ( $L_{dn}$ ) noise contours.  $L_{dn}$  noise contours account for the A-weighted noise magnitude of individual occurrences, as well as the time duration of each event. Additionally, they account for the total number of single event occurrences during the 24-hour day. They also weight these occurrences relative to the time of day in which they occur to account for increased human sensitivity to noise at night.

The procedure consists of first determining the equivalent number of operations  $N$  which is equal to the actual number which occurs during the DAY time period (7: a.m. to 10:00 p.m.) plus 10 times the number occurring during the NIGHT time period (10:00 p.m. to 7:00 a.m.). The factor of 10 relates to increased noise sensitivity during the NIGHT time period. A graphical look-up chart is provided such that the distance to a desired contour value (i.e., 65, 70, 75 dB) may be read directly by entering the chart at the calculated value of equivalent operations,  $N$ .

Finally, adjustment factors may be included to account for increased noise levels (and hence, broader reaching noise contours) resulting from tight radius curves, switching frogs, unwelded rail, and bridgework.

## Directions for Usage

### Step 1 — Equivalent Number of Operations

Calculate equivalent number of on-line operations from the formula:

$$N = N_d + 10 N_n$$

where:

$N$  = equivalent number of operations

$N_d$  = number of daytime operations occurring between 7:00 a.m. and 10:00 p.m.

$N_n$  = number of nighttime operations occurring between 10:00 p.m. and 7:00 a.m.

### Step 2 — Distance to $L_{dn}$ Contour Values

To find the distance to a given contour value, enter Figure 1 at this value on the left vertical axis and move horizontally to the right until the curve corresponding to the desired value of equivalent number of operations is reached. Move vertically down from that point and read the distance in feet from the track to this contour value. Contour values so determined do not take into account miscellaneous track irregularities which may increase noise generation at specific locations.

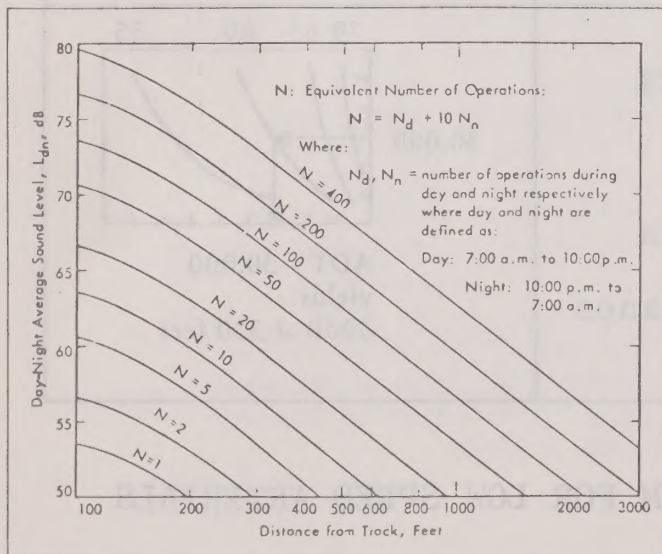


Figure 1 — Distances to day-night average level ( $L_{dn}$ ) noise contours for railroad line operations.

Table 1 — Adjustments to  $L_{dn}$  Noise Contours

| Variables Affecting Noise Output                                                                    | Correction to Desired $L_{dn}$ Value, dB |
|-----------------------------------------------------------------------------------------------------|------------------------------------------|
| 1. Passenger trains only ..... -1<br>(If combination of passenger and freight — assume all freight) |                                          |
| 2. Presence of helper engines:                                                                      |                                          |
| a. Level grade or descending grade .....                                                            | 0                                        |
| b. Ascending grade .....                                                                            | +2                                       |
| 3. Mainline welded or jointed track .....                                                           | 0                                        |
| 4. Low speed classified jointed track .....                                                         | +4                                       |
| 5. Presence of switching frogs or grade crossings .....                                             | +4                                       |
| 6. Tight radius curve                                                                               |                                          |
| a. Radius less than 600 feet .....                                                                  | +4                                       |
| b. Radius 600 to 900 feet .....                                                                     | +0.5                                     |
| c. Radius greater than 900 feet .....                                                               | 0                                        |
| 7. Presence of bridgework                                                                           |                                          |
| a. Light steel trestle .....                                                                        | +14                                      |
| b. Heavy steel trestle .....                                                                        | +5                                       |
| c. Concrete structure .....                                                                         | 0                                        |



### Step 3 — Additional Factors Affecting Noise Output

Table 1 summarizes the net effect of these additional variables on the  $L_{dn}$  noise contours produced by railroad line operations. To include these factors in the analysis, derive an "adjusted contour value" by subtracting the adjustment value determined from Table 1 from the value of the contour desired. (In the case of multiple occurrence of the items shown in this Table, only the larger of the adjustment values should be used.) Enter Figure 1 at the new adjusted contour value to obtain the distance to the originally-desired contour value. (This procedure effectively moves a given contour farther from the tracks to account for the increased noise output.

#### Example

Given: Passenger and Freight Operations activity over a segment of north-south welded mainline track as summarized in the table below:

| Type/Direction         | Number of Daily Operations |       |
|------------------------|----------------------------|-------|
|                        | Day                        | Night |
| Freight - Northbound   | 6                          | 2     |
| Freight - Southbound   | 4                          | 1     |
| Passenger - Northbound | 3                          | 0     |
| Passenger - Southbound | 3                          | 0     |
| Total                  | 16                         | 3     |

The equivalent number of operations  $N$  are calculated as:

$$N = N_D + 10N_N = 16 + 10 \times 3 = 46^*$$

Assume we wish to compute the distances to the 70, 65, and 60 dB contours.

Given  $N = 46$ , these distances are determined from Figure 1 and shown below.

| Contour Value, dB | Distance from Tracks, feet |
|-------------------|----------------------------|
| 70                | 115                        |
| 65                | 250                        |
| 60                | 450                        |

If we now wish to include the effects of track irregularities over certain segments on the line, for example, presence of a switching frog, the following adjustment are made: Value of adjustment from Table 1 = +4 dB (Thus the switching frog will increase the noise level by 4 dB and extend the breadth of the contours). The effect of the increased noise level at the point of the switching frog on the contour is summarized below.

| Desired Contour Value, dB | Adjustment Factor — from Table 1 | Adjusted Contour Value, dB | Distance to Desired Contour Value, feet |
|---------------------------|----------------------------------|----------------------------|-----------------------------------------|
| 70                        | +4                               | 66                         | 220                                     |
| 65                        | +4                               | 61                         | 400                                     |
| 60                        | +4                               | 56                         | 730                                     |

### References

1. Swing, J. W. and Pies, D. P., "Assessment of Noise Environments Around Railroad Operations," Wyle Laboratories Research Report No. WCR 73-5, July 1973.

\* Note that per direction given in Table 1 under "Passenger Trains Only," when the traffic consists of both passenger and freight operations, all operations should be treated as freight operations.



## GLOSSARY

### 1. Acoustical Site Planning

Acoustical site planning uses the arrangement of buildings on a tract of land to minimize noise impacts by capitalizing on the site's natural shape and contours. Opportunities for successful acoustical site planning are determined by the size of the lot, the terrain, and the zoning. In general, conventional zoning patterns lack the flexibility necessary to permit innovative site planning techniques. A possible way to achieve the needed flexibility is through the use of cluster and planned unit development techniques. Acoustical site planning techniques include:

- a. Placing as much distance as possible between the noise source and the noise sensitive activity;
- b. Placing noise-compatible activities such as parking lots, open space, and commercial facilities, between the noise source and the sensitive activity;
- c. Using buildings as barriers;
- d. Orienting noise-sensitive buildings to face away from the noise source.

### 2. Ambient Noise Level

Ambient noise is the all-encompassing noise associated with a given environment--usually a composite of sounds from many sources near and far. For the purpose of noise analysis, the ambient level is obtained when noise is averaged over a period of 15 minutes, without inclusion of noise from isolated identifiable sources, at the location and time of day where a comparison is to be made.

### 3. A-weighted Decibels

Because we are interested in human reaction to noise, it is important that a meter measures noise in the same way that humans perceive it. To the human ear, loudness is not only a function of sound intensity, but also of sound frequency. Higher frequency sounds tend to seem louder to people than lower frequency sounds. Therefore, sound level meters are often equipped with weighting networks which give more weight to higher frequency sounds. There are three different weighting networks, designated as A, B and C, which give varying degrees of weight to high frequency sounds. Highway generated noise is usually measured with the A-weighted network. The readings taken on the meter are recorded in A-weighted decibels (dBA).

### 4. Caltrans

State of California Department of Transportation.



## 5. Community Noise Equivalent Level (CNEL)

This scale provides, essentially, a 24-hour sound energy average--but one which is "period-weighted" so as to assign greater importance to noise during the evening (7:00 to 10:00 p.m.) and even greater importance to nighttime noise (10:00 p.m. to 7:00 a.m.). This weighting is justified on the ground that noise during these periods is more disturbing than daytime sounds and the ambient noise level is typically lower during these periods. The system is especially well adapted for assessment of airport noise, and in fact is used in the noise regulations of the California Division of Aeronautics. A disadvantage of CNEL, however, is that measurements require costly equipment, a staff of highly trained technicians, and the commitment of considerable man-hours.

## 6. Decibels

The intensity of sounds which are audible by the ear is commonly measured in "decibels" (abbreviated dB). The decibel scale ranges from 0 to 140, with 0 corresponding to the lowest sound level that the healthy, unimpaired human ear can detect. However, this scale is logarithmic, and therefore decibels are not like linear units like miles or pounds. Each increase of 10 dB means that the acoustical energy is multiplied by 10. This means that a sound of 70 dB is 10 times as intensive as 60 dB, 100 times as intensive as 50 dB, and 1,000 times as intensive as 40 dB. However, the relative "loudness" of sounds, as perceived by the human ear, does not closely match the actual relative amounts of sound energy. For example, while 70 dB is physically 10 times as intensive as 60 dB, listeners will tend to judge it as only twice as "loud".

## 7. Hertz

The pitch (or frequency) of a sound--its "highness" or "lowness" --depends on the relative rapidity of the vibrations by which it is produced. In a low-pitched tone the sound waves are relatively far apart, while in a high-pitched one they are squeezed much closer together. Pitch is measured in cycles per second (also called hertz or hz.). Although some "pure tone" sounds contain only one frequency, more usually sound is a mixture of different frequencies. Sound with a wide, random range of pitches is called "broad-band".

Although the human ear can hear frequencies as low as 20 hz. and as high as 20,000 hz., it does not hear them all equally well. This means that people may assign different "loudnesses" to two sounds having identical intensities but widely differing frequencies.

## 8. Ldn

Day-Night Average Level. The average equivalent A-weighted sound level during a 24-hour day, obtained after addition of 10 decibels to sound levels in the night before 7:00 a.m. and after 10:00 p.m.



## 9. L10 and Other Percentile Measurements

"Percentile" measurements are presented in terms of the sound level which is exceeded for a stated percentage of the time under consideration. For example, L10 says what level is exceeded 10 percent of the time; L90 tells what is exceeded 90 percent of the time, and so on. (L90 or L95, incidentally, are often used as an approximation for the residual noise level.). The Federal Highway Administration standards for Federally-assisted road construction are expressed in terms of maximum L10 during the noisiest hour of the day. Such percentile measurements are relatively easy to calculate. However, they seem to be better adapted to relatively steady noise situations like freeways rather than to cases like airports or rapid transit lines which are characterized by separated individual noise events.

## 10. NEF

Over the past ten years, the Federal Aviation Administration and acoustical researchers have developed several methods of forecasting the effects of airport noise upon the surrounding communities. One of the primary aircraft noise forecasting techniques in the United States is the Noise Exposure Forecast (NEF) method. NEF employs Effective Perceived Noise decibels (EPNdB) as the aircraft noise measurement unit and thereby accounts for discreet tones and duration of aircraft flyover. The other factors which are related in a complex mathematical relationship are absolute noise levels, noise spectrum, maximum tone, noise duration, aircraft type, mix of aircraft, number of operations, runway utilization, flight path, operating procedures, and time of day.

## 11. Noise Barriers

Noise barriers can be erected between noise sources and noise-sensitive areas. Barrier types include berms made of sloping mounds of earth, walls and fences constructed of a variety of materials, thick plantings of trees and shrubs, and combinations of these materials. The choice between these depends on a variety of factors, including the desired level of sound reduction, space, cost, safety and aesthetics.

## 12. Noise Contours

As called for by State law, existing and projected "noise contours" have been estimated for the various transportation facilities. Such contours are analogous to the lines on a topographic map. Instead of connecting points of equal elevation, they join locations having equal average sound pressure level. For example, the "65 dBA" contour for a freeway runs through those points impacted by a noise level of 65 dBA coming from that freeway. In general the noisier a freeway or other noise source is, the farther one must back away from it to get down to a given contour line.



## INTRODUCTION

The California Government Code requires that all Local General Plans include a Scenic Highway Element for the development, establishment, and protection of scenic highways. State guidelines further define the procedures local government should follow in order to develop and adopt scenic routes:

1. Identification and evaluation of scenic corridors in the planning area; consideration of special features such as entry-ways, river or bay front highways, park entries, and similar features of natural or landscaped and landscaped arterials; inclusion of a highway system within the scenic highway corridor may be considered.
2. Statement of policy with diagrams and indicating the community's scenic highway system and the scenic theme.
3. Guide to implementation measures.

Currently, the State of California, Sonoma County, and the City of Santa Rosa have designated various scenic highways, streets, and roads in the Santa Rosa Planning Area. All of these routes are depicted on the map "Existing Scenic Routes" (See Figure 1).

### California State SCENIC HIGHWAYS ELEMENT

The State Scenic Highway Law of 1935 provides that any highway included in the State Master Plan for Scenic Highways is eligible for designation as an "Official State Scenic Highway". Route designation depends upon completion of procedures prescribed by the State to preserve and protect the natural and man-made characteristics of the route and the scenic corridor. Responsibility for initiation of the designation procedure rests with the local governmental body.

Highway 12 through the Valley of the Moon was included in the original State Master Plan. At the request of the County, the Division of Highways in 1962 ordered a general study of the highway corridor, titled the Scenic Highway Study. In turn, the State accepted the County's North Sonoma Valley Corridor Study (1974) as a local corridor plan providing for the protection and enhancement of the area's route. Official designation of Highway 12 as a "State Scenic Highway" from Father's Flat Springs to London's Corner in the Santa Rosa Planning Area was granted in 1975.

### Sonoma County Scenic Highways

County scenic highways may be of two types: (1) State-approved county scenic highways; and (2) local scenic routes as classified in a County's adopted Scenic Highway Element.







## INTRODUCTION

The California Government Code requires that all local General Plans include a Scenic Highways Element for the development, establishment, and protection of scenic highways. State guidelines further define the procedures local government should follow in order to develop and adopt scenic routes:

1. Identification and evaluation of scenic corridors in the planning area; consideration of special features such as entry-ways, river or bay front highways, park drives, and similar important natural or landscaped and beautified arterials. Inclusion of a bikeway system within the scenic highway corridor may be considered.
2. Statement of policy with diagram map indicating the community's scenic highway system and the routes therein.
3. Guide to implementation measures.

Currently, the State of California, Sonoma County, and the City of Santa Rosa have designated various scenic highways, streets and roads in the Santa Rosa Planning Area. All of these routes are depicted on the map "Existing Scenic Routes" (See Figure 1).

### California State Scenic Highways

The State Scenic Highway Law of 1963 provides that any highway included in the State Master Plan for Scenic Highways is eligible for designation as an "Official State Scenic Highway". Route designation depends upon completion of procedures prescribed by the State to preserve and protect the natural and man-made characteristics of the route and its scenic corridor. Responsibility for initiation of the designation procedure rests with the local governmental body.

Highway 12 through the Valley of the Moon was included in the original State Master Plan. At the request of the County, the Division of Highways in 1969 prepared a general study of the highway corridor, titled the Scenic Highway Report. In turn, the State accepted the County's North Sonoma Valley Zoning Study (1974) as a local corridor plan providing for the protection and enhancement of the scenic route. Official designation of Highway 12 as a "State Scenic Highway" from Feters Hot Springs to Lawson's Corner in the Santa Rosa Planning Area was granted in 1975.

### Sonoma County Scenic Highways

County scenic highways may be of two types: (1) State-approved county scenic highways; and (2) local scenic routes so classified in a county's adopted Scenic Highways Element.









FIG. 1







## Santa Rosa Scenic Highways, Roads and Streets

The 1967 Santa Rosa Area General Plan did not have a separate Scenic Highways Element. However, approximately thirty-three roads and streets were designated scenic as a part of the Circulation Element.

### SCENIC ROADWAYS PLAN

The first step in developing the Scenic Roadways Plan\* involves the identification of possible scenic routes. All highways, streets, and roads in the Planning Area which appear to exhibit at least some scenic qualities were surveyed in the field via automobile; the object of the survey was the "view from the road". Results of the "windshield" survey were analyzed according to certain visual criteria and summarized graphically on the map, "Scenic Roadways Visual Analysis" (See Figure 2).

The next step in the process of selecting scenic roadways involves the evaluation of potential scenic corridors. Routes identified above as possible scenic roads were evaluated according to generally accepted scenic road indicators or standards for scenic roadway selection. Results of this evaluation are summarized on the table, "Scenic Roadway Indicators".

The final step in the process involves the actual selection of the scenic roadways system. This was accomplished by analyzing the Composite Potential column of the "Scenic Roadway Indicators" table. The analysis revealed a strong pattern of (1) corridors with outstanding aesthetic resources; (2) corridors or roadways which are threatened imminently by development or reconstruction; and (3) alignments necessary for a continuous scenic roadways system or network. Roadways with these characteristics were noted as such and included in the proposed Scenic Roadways Plan.

### Objectives and Policies

The Scenic Roadways Plan consists of objectives, policies, and a Scenic Roadways Plan diagram showing all proposed scenic routes.

#### Objectives

1. To plan and develop a scenic roadways system which will serve the transportation and recreation needs of Santa Rosa Planning Area motorists, bicyclists, and pedestrians.
2. To preserve and enhance aesthetic resources along scenic roadways and corridors.

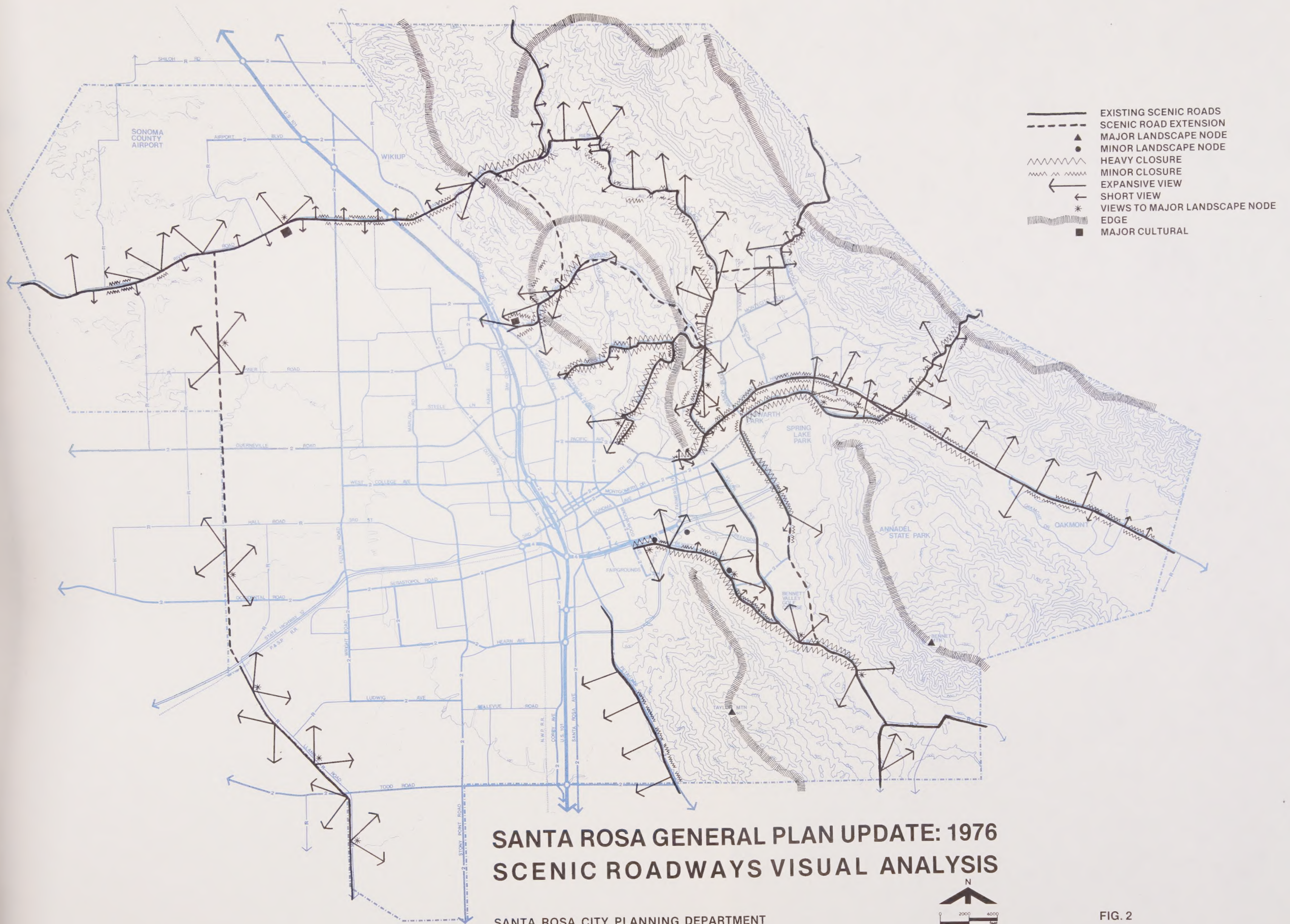
---

\* At the municipal level, scenic streets and roads are more typical than scenic highways. Thus, the term "Scenic Roadways Plan" is more appropriate for Santa Rosa than "Scenic Highways Plan".















# SCENIC ROADWAY INDICATORS

● INDICATES HIGH POTENTIAL FOR SELECTION AS SCENIC ROADWAY

○ INDICATES MODERATE OR LOW POTENTIAL FOR SELECTION AS SCENIC ROADWAY

## POTENTIAL FOR SELECTION

## SCENIC ROADWAY INDICATORS

a. Scenic Resources - land forms, vegetation  
b. Views, Vistas - expansive and short  
c. Creekside Location - visual access  
d. Park Facility - physical access  
e. Projected Traffic - Volume  
f. Fragility of Corridor - priority for study  
g. Fragility of Roadway - priority for design  
h. Current Scenic Designation - State, County or City  
i. Importance to "Scenic Loop" - self guiding tour concept

## COMPOSITE POTENTIAL

## COMMENTS REGARDING POTENTIAL SELECTION

## POTENTIAL SCENIC ROADWAYS

| POTENTIAL SCENIC ROADWAYS          | a. | b. | c. | d. | e. | f. | g. | h. | i. | COMPOSITE POTENTIAL | COMMENTS REGARDING POTENTIAL SELECTION                                                 |
|------------------------------------|----|----|----|----|----|----|----|----|----|---------------------|----------------------------------------------------------------------------------------|
| 1. Badger Road                     | ○  | ○  | ○  | ○  | ●  | ○  | ○  | ○  | ○  | ○                   | Of moderate scenic value, but needed to link up with Rincon Avenue.                    |
| 2. Bennett Valley Road             | ●  | ●  | ○  | ●  | ●  | ●  | ●  | ●  | ○  | ●                   | Outstanding views and vistas. Heavy potential use on extremely fragile roadway.        |
| 3. Brush Creek Road                | ●  | ●  | ●  | ○  | ●  | ○  | ○  | ●  | ○  | ●                   | One of the Planning Area's most significant scenic roads.                              |
| 4. Calistoga Road (North)          | ●  | ●  | ●  | ○  | ○  | ○  | ○  | ●  | ○  | ●                   | Spectacular views and vistas of Rincon Valley. Also part of County scenic system.      |
| 5. Chanate Road                    | ○  | ●  | ○  | ●  | ●  | ○  | ○  | ○  | ○  | ○                   | This once fragile road has lost much charm in recent years because of "improvements".  |
| 6. Farmers Lane                    | ○  | ○  | ○  | ○  | ●  | ○  | ○  | ○  | ○  | ○                   | Proposed by the County as present and future State Highway 12 route.                   |
| 7. Farmers Lane Extension (Future) | ●  | ●  | ●  | ○  | ○  | ○  | ○  | ○  | ○  | ○                   | Proposed by the City as a landscaped parkway. Outstanding potential.                   |
| 8. Faught Road                     | ●  | ●  | ○  | ○  | ○  | ○  | ○  | ○  | ○  | ○                   | Remote and little traveled, but part of the County scenic system.                      |
| 9. Fountain Grove Parkway          | ●  | ●  | ○  | ○  | ○  | ○  | ○  | ○  | ○  | ○                   | New scenic road design standards are needed before this parkway is extended.           |
| 10. Fulton Road                    | ○  | ○  | ○  | ○  | ○  | ○  | ○  | ○  | ○  | ○                   | Of critical importance will be the undeveloped western "edge" of this arterial street. |
| 11. Grange Road                    | ●  | ●  | ○  | ○  | ○  | ○  | ○  | ○  | ○  | ○                   | Little traveled and remote.                                                            |
| 12. Hartman Road                   | ○  | ●  | ○  | ○  | ○  | ○  | ○  | ○  | ○  | ○                   | Little traveled and remote. No longer shown on City's Circulation Master Plan.         |
| 13. Llano Road                     | ○  | ●  | ○  | ○  | ○  | ○  | ○  | ○  | ○  | ○                   | Extensive views of the Laguna Flood plain. Also part of the County scenic system.      |
| 14. Los Alamos Road                | ●  | ●  | ○  | ○  | ○  | ○  | ○  | ○  | ○  | ○                   | Good views, but this dead-end road is little traveled.                                 |
| 15. Mark West Springs Road         | ●  | ●  | ○  | ○  | ○  | ○  | ○  | ○  | ○  | ○                   | Land forms, vegetation, creek. Also part of the County scenic system.                  |
| 16. Mission Boulevard              | ○  | ○  | ○  | ○  | ○  | ○  | ○  | ○  | ○  | ○                   | Unremarkable in every respect. Part of County's proposed circulation system.           |
| 17. Montecito Avenue               | ●  | ○  | ○  | ○  | ○  | ○  | ○  | ○  | ○  | ○                   | Unique blending of native vegetation and extensive landscaping. Very fragile roadway.  |
| 18. Montgomery Drive (East)        | ●  | ○  | ○  | ○  | ○  | ○  | ○  | ○  | ○  | ○                   | Good creekside visual access. Canopy of vegetation. Very fragile roadway.              |
| 19. Occidental Road                | ○  | ○  | ○  | ○  | ○  | ○  | ○  | ○  | ○  | ○                   | On the edge of the Planning Area, but part of the County scenic system.                |
| 20. Parker Hill Road               | ●  | ●  | ○  | ○  | ○  | ○  | ○  | ○  | ○  | ○                   | Good views of the Hidden Valley area and surrounding hillsides. Fragile corridor.      |
| 21. Petaluma Hill Road (South)     | ●  | ●  | ○  | ○  | ○  | ○  | ○  | ○  | ○  | ○                   | Expansive views west toward Santa Rosa Plain. Also part of County scenic system.       |
| 22. Piezzi Road                    | ○  | ●  | ○  | ○  | ○  | ○  | ○  | ○  | ○  | ○                   | Little traveled and remote. No longer shown on City's Circulation Master Plan.         |
| 23. Riebli Road                    | ●  | ●  | ○  | ○  | ○  | ○  | ○  | ○  | ○  | ○                   | Extension of Wallace Road, with same outstanding attributes.                           |
| 24. Rincon Avenue                  | ○  | ●  | ○  | ○  | ○  | ○  | ○  | ○  | ○  | ○                   | Expansive views and vistas north and south.                                            |
| 25. River Road                     | ○  | ●  | ○  | ○  | ○  | ○  | ○  | ○  | ○  | ○                   | Excellent views of orchards and vineyards. Also part of County scenic system.          |
| 26. St. Helena Road                | ●  | ●  | ○  | ○  | ○  | ○  | ○  | ○  | ○  | ○                   | Remote and little traveled, but part of the County scenic system.                      |
| 27. State Hwy. 12, Sonoma Valley   | ●  | ●  | ○  | ○  | ○  | ○  | ○  | ○  | ○  | ○                   | Official State designated Scenic Highway.                                              |
| 28. State Hwy. 12, remainder       | ○  | ○  | ○  | ○  | ○  | ○  | ○  | ○  | ○  | ○                   | Urban vistas. Also part of County scenic system.                                       |
| 29. Summerfield Road               | ○  | ○  | ○  | ○  | ○  | ○  | ○  | ○  | ○  | ○                   | Northern section proposed as part of State Highway 12.                                 |
| 30. Todd Road                      | ○  | ○  | ○  | ○  | ○  | ○  | ○  | ○  | ○  | ○                   | Moderate scenic value, but critical to the "scenic loop" concept.                      |
| 31. U. S. 101 Freeway              | ○  | ○  | ○  | ○  | ○  | ○  | ○  | ○  | ○  | ○                   | Urban vistas. Part of the County scenic system.                                        |
| 32. Wallace Road                   | ●  | ●  | ○  | ○  | ○  | ○  | ○  | ○  | ○  | ○                   | Outstanding scenic road - views, vistas, creek, landforms, farms, varied vegetation.   |
| 33. Yulupa Avenue                  | ○  | ○  | ○  | ○  | ○  | ○  | ○  | ○  | ○  | ○                   | Low potential for selection as scenic street.                                          |







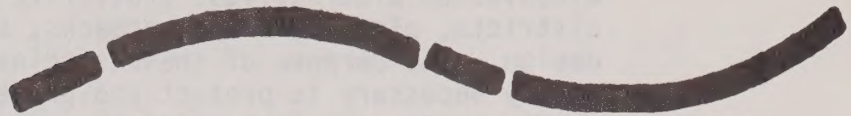
## Policies

1. Initiate a program of scenic road corridor studies. These studies may include recommendations on land use and circulation alternatives, protective zoning and design districts, plan lines and setbacks, and scenic roadway design. The purpose of these studies is to provide policy necessary to protect and preserve designated scenic roads. Highest priority routes for corridor analysis are:
  - a. Bennett Valley Road
  - b. Brush Creek Road
  - c. Farmers Lane (proposed extension only)
  - d. Fountain Grove Parkway (proposed extension only)
  - e. Fulton Road
  - f. Montecito Avenue
  - g. Montgomery Drive (east of Mission Boulevard only)
  - h. Parker Hill Road
2. Conduct corridor studies for proposed scenic street extensions at the time plan lines are developed.
3. Conduct corridor studies for existing scenic roads before any reconstruction occurs, except that immediate reconstruction may occur to alleviate serious safety deficiencies.
4. Defer routine reconstruction of scenic roadways until the appropriate corridor studies are completed.
5. As a general principle, reconstruction of rural type scenic roads should occur only to alleviate serious capacity or safety shortcomings.
6. Modify existing environmental and design review procedures to include review of projects along designated scenic routes, and also review of construction or reconstruction of the scenic roadways themselves.
7. Adopt comprehensive design standards for scenic roadways. Criteria for the development of these standards are as follows:
  - a. Alignments

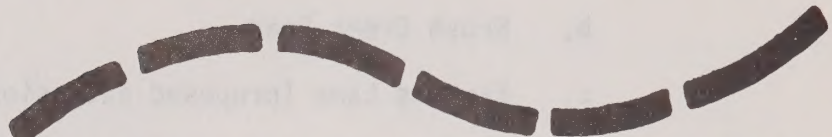
Alignments should be free flowing (such as Montgomery Drive east of Mission Boulevard) rather than unnaturally forced or kinked (such as Fountain Grove Parkway). Long curve-short tangent, continuous



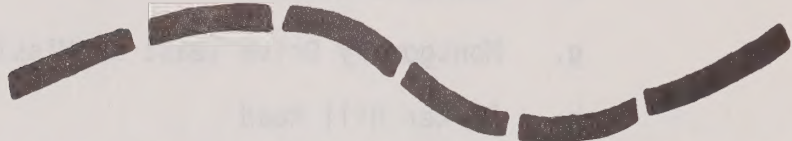
curvilinear, or spiral curve horizontal and vertical alignments should be utilized in the design of scenic roadways. Long tangent-short curve alignments basically are not acceptable.



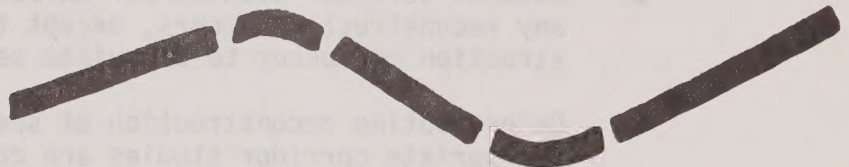
LONG CURVE - SHORT TANGENT  
ACCEPTABLE



CONTINUOUS CURVILINEAR CURVE  
ACCEPTABLE



SPIRAL CURVE - ACCEPTABLE

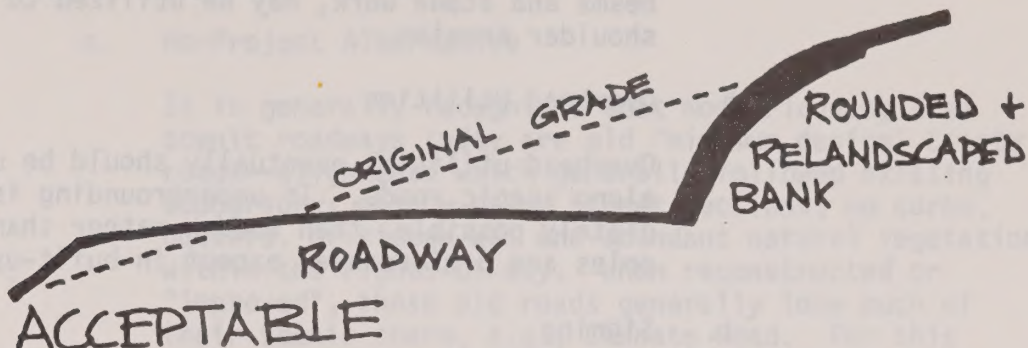
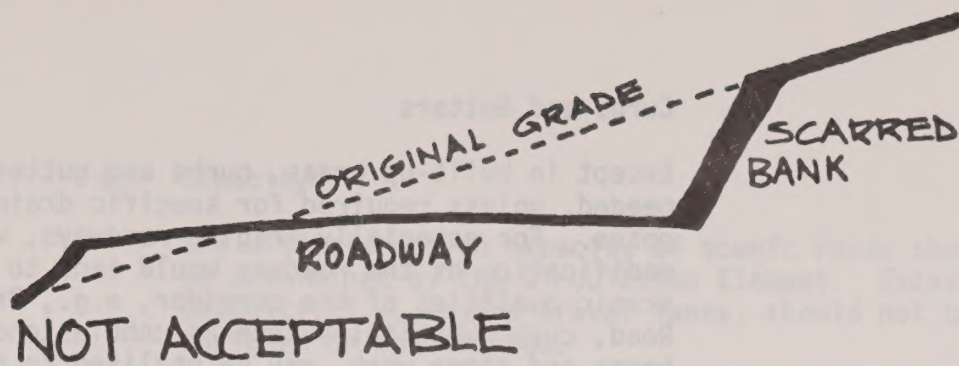


LONG TANGENT - SHORT CURVE  
NOT ACCEPTABLE

b. Grading

Just as scenic road alignments should respect the landscape and flow around rather than through topographic features, so too must grading be fitted to topography. Road traverses should not result in excessive scarring of banks, as evidenced along the southwest side of Bennett Valley Road; contour grading always should be undertaken to achieve slope rounding.





c. Landscaping

Scarred banks should be rounded and re-landscaped with native plant material, as appropriate. Landscaping or re-landscaping should be a major consideration and important budget item of any scenic roadway construction or reconstruction project. A street tree plan should be part of the scenic roadway design project in built-up areas. Landscaped median strips or setbacks should be utilized in the design of four-lane scenic roads in built-up areas.

d. On-Street Parking

Except in built-up areas, on-street parking should not be provided along scenic roads. Parking bays for emergency stopping, bus stops and scenic overlooks may be provided at appropriate intervals.

e. Bike Lanes

Four-foot bike lanes should be included in all scenic road cross sections.

f. Pedestrian Paths

Pedestrian paths which meander within the scenic right-of-way are more appropriate than paved sidewalks, except in built-up areas. Construction materials should be compatible with the natural landscape, and may include surfaces such as gravel, sand, decomposed granite, stone, wood blocks, etc.



g. Curbs and Gutters

Except in built-up areas, curbs and gutters are not needed, unless required for specific drainage purposes. For especially fragile roadways, where normal modification of the roadway would tend to diminish the scenic qualities of the corridor, e.g., Brush Creek Road, curb substitutes such as cobblestones, wooden beams and stone work, may be utilized to prevent shoulder erosion.

h. Overhead Utilities

Overhead utilities eventually should be undergrounded along scenic roads. If undergrounding is not immediately possible, then wooden rather than aluminum poles are preferable, except in built-up areas.

i. Signing

The impact of roadside signing can affect the scenic qualities of a corridor. Therefore, signing--placement, conveyance of information, appearance, etc.--should be part of the overall design of scenic roadways.

j. Appurtenances

Railings, posts, fences, and other roadside appurtenances should be included in the scenic roadway design. Natural materials such as stone, brick and wood are preferable to metal posts and rails.

k. Rights-of-way

Rights-of-way for scenic roadways should be wide enough to retain natural vegetation and to provide significant setback areas. In built-up areas, scenic road rights-of-way may include median strips, landscaped and bermed areas, tree plantings, frontage roads, etc.

l. Aesthetics

Design emphasis of scenic roads should be on the roadway itself as a work of art. Design should emphasize retention of trees and protection of land forms through care in grading, i.e., fitting road alignments to the natural landscape.



m. Capacity

The ultimate design capacity of scenic roads should be determined by the Circulation Element. Excess capacity, i.e., extra travel lanes, should not be designed or constructed.

n. No-Project Alternative

It is generally recognized that most Planning Area scenic roadways today are old "minimum design" County roads--alignments which generally followed existing topography; narrow paved street sections; no curbs, gutters, or sidewalks; and abundant natural vegetation within the rights-of-way. When reconstructed or "improved", these old roads generally lose much of their scenic charm, e.g., Chanate Road. For this reason, the no-project alternative always should be considered seriously for any proposed scenic road reconstruction project. Piecemeal reconstruction which is undertaken routinely merely to achieve developer participation should be deferred until such time as an overall corridor study and design plan can be completed.

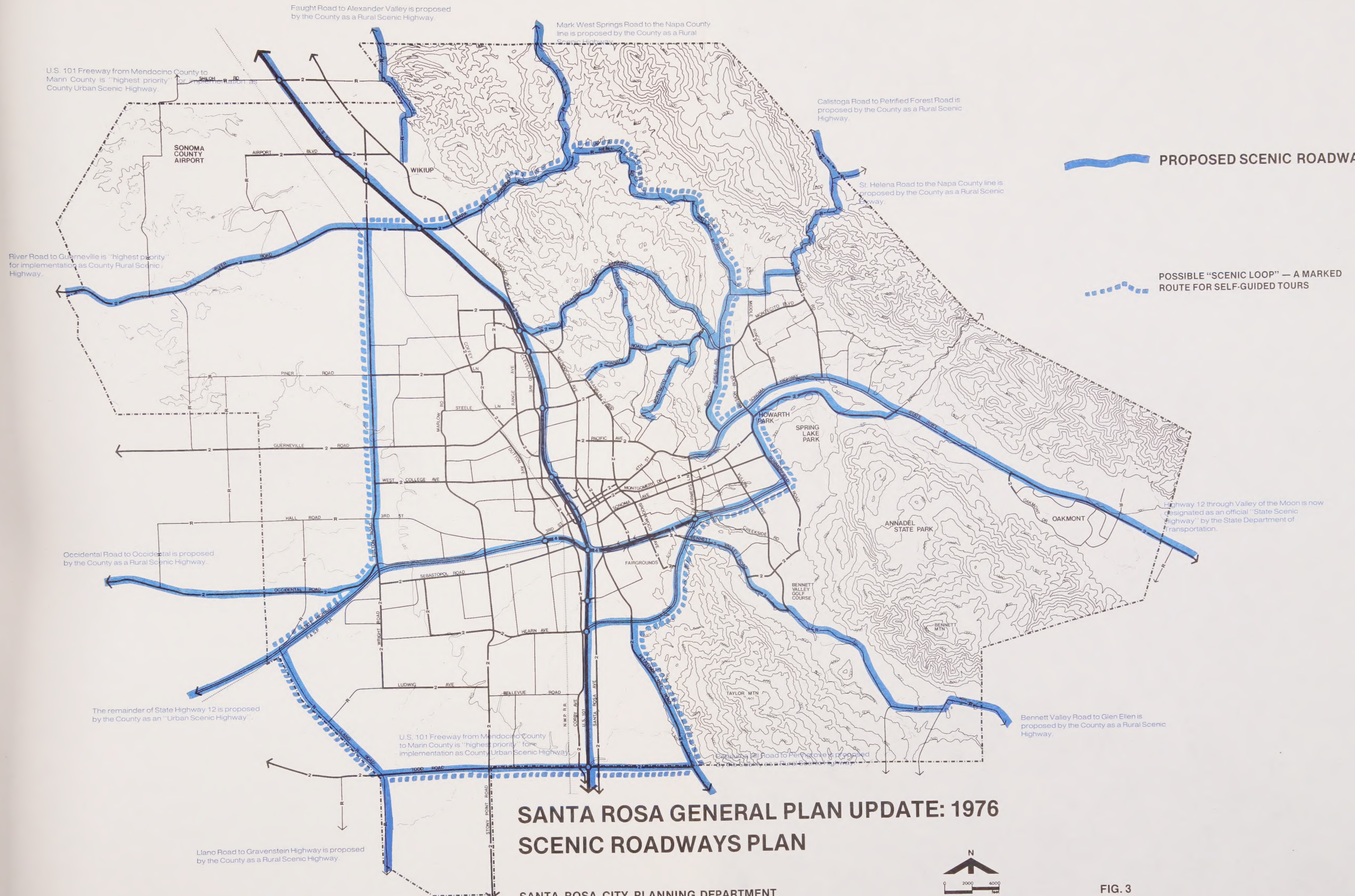
SCENIC ROADWAYS PLAN DIAGRAM

Routes shown constitute the proposed Scenic Roadways Plan for the Santa Rosa Planning Area (see Figure 3). Many of the routes which are proposed in unincorporated territory also have been designated in the Sonoma County Scenic Highways Element. Santa Rosa's Plan therefore recognizes the County's proposals and reinforces the County's implementation recommendations.









# SANTA ROSA GENERAL PLAN UPDATE: 1976 SCENIC ROADWAYS PLAN

SANTA ROSA CITY PLANNING DEPARTMENT



FIG. 3







The quality of life in a community is greatly affected by the availability of recreational facilities. The purpose of this study is to determine the recreational needs of the community and to develop a plan to meet these needs. The study will be conducted in three phases: a survey of the community, a review of existing recreational facilities, and a development of a recreational plan.

The purpose of this study is to determine the recreational needs of the community and to develop a plan to meet these needs. The study will be conducted in three phases: a survey of the community, a review of existing recreational facilities, and a development of a recreational plan. The survey will be conducted by distributing questionnaires to the residents of the community. The review of existing recreational facilities will be conducted by visiting the facilities and talking to the staff. The development of a recreational plan will be based on the results of the survey and the review of existing facilities.

It is the policy of the community to provide recreational facilities for its residents. The purpose of this study is to determine the recreational needs of the community and to develop a plan to meet these needs. The study will be conducted in three phases: a survey of the community, a review of existing recreational facilities, and a development of a recreational plan. The survey will be conducted by distributing questionnaires to the residents of the community. The review of existing recreational facilities will be conducted by visiting the facilities and talking to the staff. The development of a recreational plan will be based on the results of the survey and the review of existing facilities.

## PARK AND RECREATION ELEMENT

The purpose of this study is to determine the recreational needs of the community and to develop a plan to meet these needs. The study will be conducted in three phases: a survey of the community, a review of existing recreational facilities, and a development of a recreational plan. The survey will be conducted by distributing questionnaires to the residents of the community. The review of existing recreational facilities will be conducted by visiting the facilities and talking to the staff. The development of a recreational plan will be based on the results of the survey and the review of existing facilities.

## OBJECTIVES, POLICIES AND STANDARDS

### Objectives

1. To determine the recreational needs of the community.
2. To develop a recreational plan to meet these needs.
3. To provide recreational facilities for the community.







## INTRODUCTION

The quality of life in any urban area is enhanced greatly by an extensive park system which serves the recreational and open space needs of the residents. Santa Rosa is noted for its fine park system, which has been augmented in recent years with nearby County and State park facilities offering a broad range of recreational activities.

The purpose of the Park and Recreation Element is to offer a plan which in the future will continue to provide outstanding park and recreational facilities for Planning Area residents. Many of the proposals contained herein may seem at first glance to be bold, ambitious or expensive; however, the facilities proposed are based on the same park standards that Santa Rosa has followed in the past to build a first-class park system. It is essential that these standards continue to be adhered to in the future, for large urban areas are very dependent on the preservation of adequate park land to maintain an acceptable living environment.

It should be emphasized at this point that maintaining and enhancing the quality of life for Santa Rosa has been the rationale for the development of this Element. Meeting the park and recreational needs of present and future residents can be satisfied by following the recommendations of the Park and Recreation Plan. The principal focus is on the manner in which park land can be used to enhance the urban environment. A pertinent example is the series of "community centers" for the West Side, located along the Marlow-Stony Point "spine" at the intersections of major cross streets. Central to the concept of a "community center" is a large, landscaped community park, immediately surrounded by intense urban development, such as medium- and high-density residential, office, and commercial uses.

The purpose of these "community centers" is to provide a strong sense of form and identity to neighborhood and community areas on the West Side. Clearly, the provision of park land at these key locations, according to the Park and Recreation Plan, will constitute a dominant land use issue for this part of Santa Rosa.

## OBJECTIVES, POLICIES AND STANDARDS

### Objectives

1. Provide adequate amounts and kinds of park land as one of the principal methods of upgrading and enhancing the urban environment.
2. Develop a comprehensive system of neighborhood, community, city-wide, regional and special-facility parks.
3. Meet the different park and recreation needs of Santa Rosa's various population groups in all areas of the community.



4. Maintain, improve and expand Santa Rosa's park and recreation facilities without exceeding the limits of the City's financial capabilities.

#### Policies

1. Designate those neighborhoods which have the most serious park deficiencies as those to receive highest priority for park acquisition and development.
2. Determine park acquisition and development expenditures on a priority rather than geographical basis.
3. Acquire or reserve park sites well in advance of actual park development.
4. Acquire park sites adjacent to existing and proposed schools where possible; and develop these park sites as joint-use facilities.
5. Acquire and develop large, undeveloped areas along remaining natural waterways within the urbanized area as linear creekside parks, where people can enjoy access to the creekside environment.
6. Require new residential development to dedicate to the City five acres of park land (or an acceptable equivalent) per every 1,000 population resulting from the new construction.
7. Establish landscaped community parks along the Stony Point-Marlow Road "spine" as integral components of the West Side community centers.
8. Encourage preservation of unique natural areas beyond the urbanized area as city-wide parks or nature preserves.
9. Consider private park and recreation facilities as being at least partially acceptable in meeting neighborhood and community park needs and in satisfying park standards.
10. Consider passive or casual use of park land free to the park visitor, while the use of specialized and capital and/or labor intensive recreational facilities increasingly should be covered by user fees.
11. Protect existing parks from conversion to non-park or non-recreational purposes.
12. Conduct public meetings within the affected neighborhood to assess the different park needs of the neighborhood or community residents prior to any major phase of park development.



13. Coordinate park planning and implementation with Sonoma County and the State of California whenever appropriate.
14. Review City park standards periodically to determine if different park needs actually are being satisfied and if long-term costs realistically can be met.

### Standards

#### Park Standards

| Park Type    | Service Radius | Minimum Site Size | Acres of Park Land Per 1,000 Population |
|--------------|----------------|-------------------|-----------------------------------------|
| Neighborhood | 1/2 mile       | 5-7 acres         | 2 acres                                 |
| Community    | 1 mile         | 10-30 acres       | 4 acres                                 |
| Regional     | 10 miles       | 200-500 acres     | 15 acres                                |
| City-wide    | Varies         | No Set Standard   | No Set Standard                         |

It should be noted that park improvements as per service radii can be achieved only under optimal conditions. In the real world, constraints such as arterial streets, creeks, undeveloped areas and commercial districts dramatically can alter a park's actual service area. "Minimum site size" refers to the area needed to develop a full range of park facilities and activities at one location. In built-up areas, where large vacant parcels are not available always, a series of smaller park facilities is an acceptable alternative and may even be more desirable. Under "acres of park land per 1,000 population", it is important to realize that regional parks also are designed to function as community and neighborhood facilities, while community parks are designed to serve neighborhood park needs.

#### Special Facility Standards

The General Plan assumes a major metropolitan role for Santa Rosa in the future, and for this reason standards also should be considered for specialized large-scale recreational facilities which will be needed to serve an expanding metropolitan population. Standards published by the Urban Land Institute include the following:

| Recreational Activity                            | Ideal Site Size | Space Requirement Per Population         |
|--------------------------------------------------|-----------------|------------------------------------------|
| Golf Courses                                     | 120 ac.         | One 18-hole course per 50,000 population |
| Zoos, Arboretums, Botanical Gardens              | 100 ac.         | One acre per 1,000 population            |
| Lakes for Fishing, Sailing, Rowing, Canoeing     | 20-100 ac.      | One lake per 25,000 population           |
| Hiking, Camping, Horse-back Riding, Nature Study | 500-1000 ac.    | Ten acres per 1,000 population           |



Standards for small-scale recreational facilities, such as play fields, tennis courts, and swimming pools are not part of this Element; such facilities can be accommodated within existing and proposed parks.

### EXISTING PARK AND RECREATION FACILITIES

Figure One depicts the location of existing park and recreation facilities in the Santa Rosa area. Shown are neighborhood, community, regional, and city-wide parks; schools with play areas, courts, or sports fields; golf courses; swimming pools; and private recreational facilities. With a few exceptions, most Santa Rosans have convenient access to a variety of parks and recreation facilities.

### PRESENT AND FUTURE NEEDS

Current Deficits: Analysis of the park standards reveals that Santa Rosa as a whole nearly meets the requirements for neighborhood parks. However, for a few established areas, serious park size and service deficiencies now exist. These include: (1) the general area north of Guerneville Road; (2) the Coddington area; (3) parts of Montgomery and Mayette Villages; (4) the Grace Tract; (5) the Junior College and Alderbrook neighborhoods; (6) the St. Francis Acres area; and (7) the Roseland neighborhood. Except for Bennett and Rincon Valleys, where community park sites currently are under development, most areas of Santa Rosa are deficient in community park coverage. The acreage total for regional parks does not meet current standards.

Future Park Needs: As stated earlier, parks will be needed in the future primarily to maintain and enhance the quality of the urban living environment. The location of these future parks in a manner which can best serve the park and recreation needs of Planning Area residents has been determined by future population concentrations as proposed in the Land Use Plan.

### PARK AND RECREATION PLAN

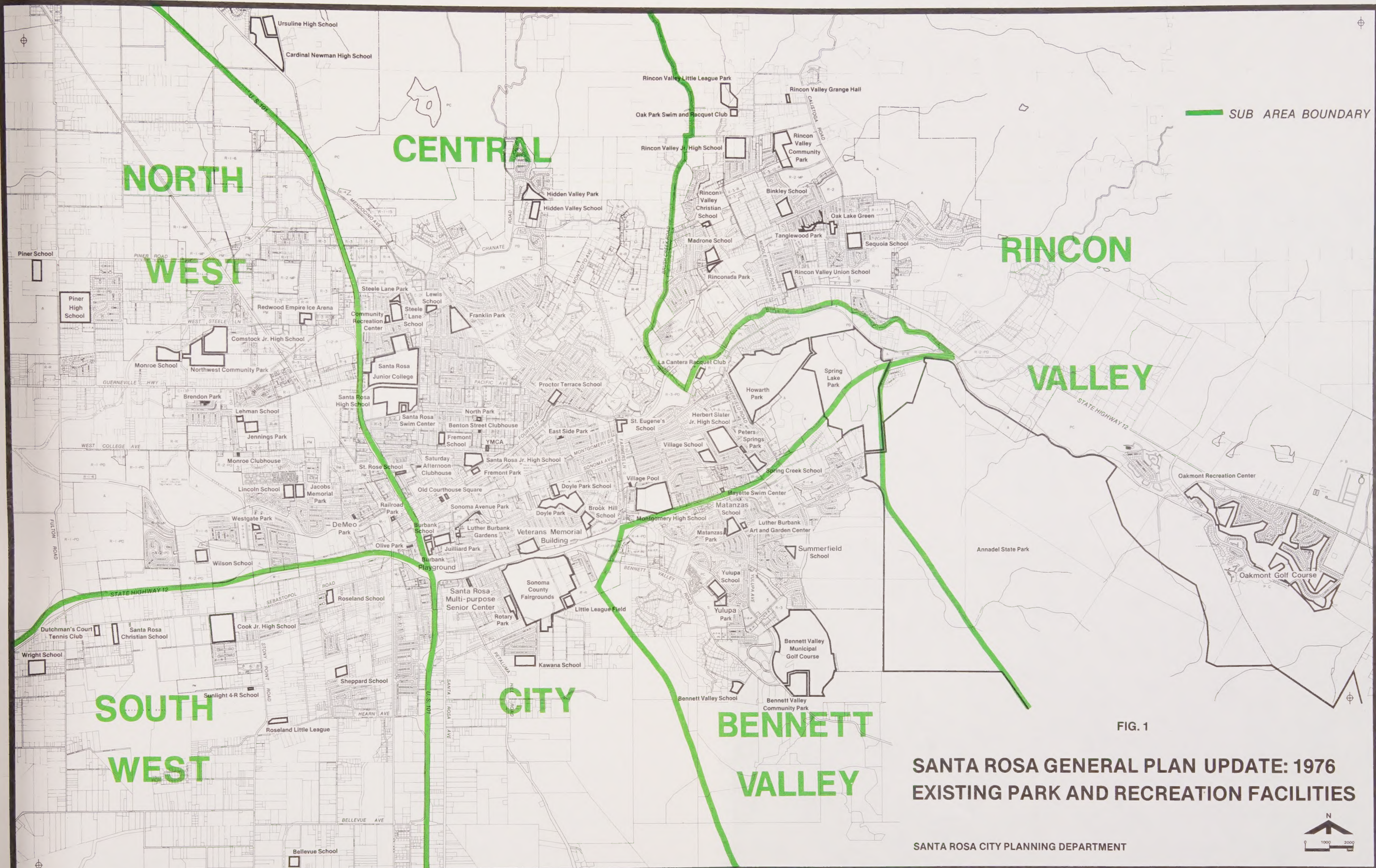
The proposed Park Plan map is shown as Figure Two. Symbols depict the locations of existing parks and general vicinities of proposed park sites.

Neighborhood parks are proposed in the park-deficient areas described earlier in this Element. Other neighborhood parks are proposed for future urban areas, most of which are located in the West Santa Rosa area.

Four new community parks are proposed along the Marlow-Stony Point "spine"; another is proposed above the lake in the Fountain Grove area. An extensive creekside community park is proposed along both sides of Santa Rosa Creek. This linear park is absolutely the last opportunity to preserve a major natural waterway within the urban core.

Two regional parks are proposed: (1) for West Santa Rosa, in the north Laguna area; and (2) for the Taylor Mountain peak and north slopes, which provide the major view of foothills from downtown Santa Rosa. Both of these proposals also are recommendations of the Open Space/Conservation Element.











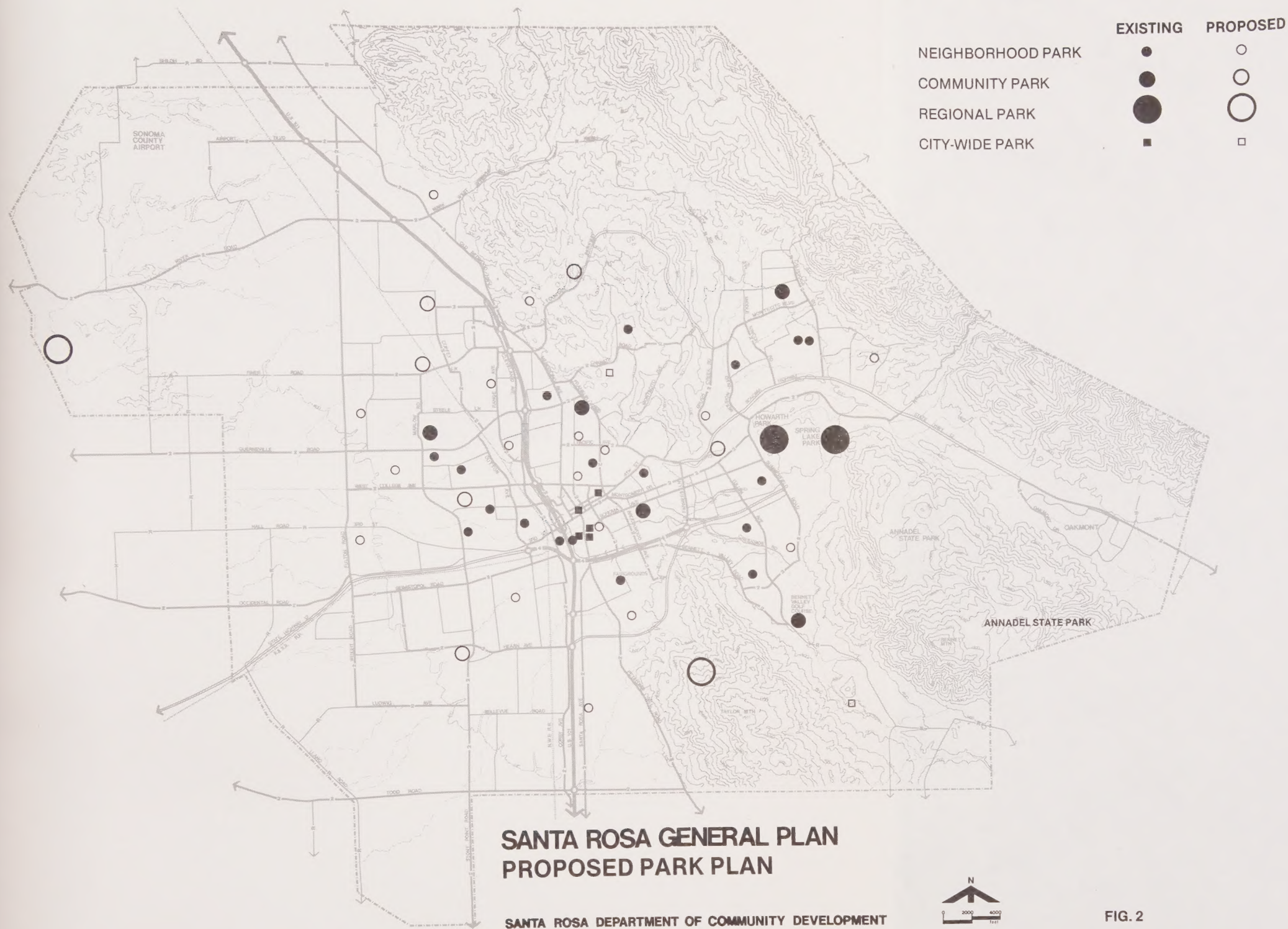


FIG. 2







City-wide nature preserves for educational and recreational purposes are proposed at the Matanzas Creek Reservoir in upper Bennett Valley, and at Pine Creek reservoir immediately south of the Community Hospital.

Special, large-scale recreational facilities are appropriate in the future to serve an expanding metropolitan population. These include an 18-hole golf course for the West Side; zoo, arboretum, and botanical gardens; three additional lake-oriented parks for passive recreational activities; and a center for cultural events and the performing arts.

#### ACCOMPLISHING THE PLAN

According to current park standards and projected population increases, Santa Rosa will need an additional 600 acres of neighborhood and community park land by the year 2000. This will cost about \$18 million, measured in 1977 dollars. To accomplish this task, the implementation plan calls for the adoption of a park land dedication ordinance. This will permit the City to require dedication of park land, the payment of in lieu fees, or a combination of both, from new residential development. These monies can be used for park land acquisition, site development, or improvement of existing sites.

Other strategies for Plan Implementation include modification of existing City park standards to allow inclusion of private park and recreation facilities; continued reduction of long-term maintenance and operation costs; and a detailed review and eventual expansion of a user fee program.







## INTRODUCTION

The Community Facilities Element describes the schools, public buildings, and utilities which will be needed to serve the planning area population in the year 2025. Since the Land Use and other General Plan Elements are adopted, the Community Facilities Element can be prepared to fit the land use pattern, ensuring that schools, public buildings, and utilities will be located and sized with the planning area's growth, urban development and open space preservation policies. Completion of this element is scheduled for fiscal year 1977-78.

## COMMUNITY FACILITIES ELEMENT







## INTRODUCTION

The Community Facilities Element describes the schools, public buildings, and utilities which will be needed to serve the planning area population in the year 2000. Once the Land Use and other General Plan Elements are adopted the Community Facilities Element can be prepared to fit the land use pattern, assuring that schools, public buildings, and utilities will be located and sized consistent with the City's growth, urban development and open space preservation policies. Completion of this element is scheduled for fiscal year 1977-78.

SOCIAL ELEMENT







## INTRODUCTION

The purpose of this report is to provide a general overview of the social element in the development of a community. It is intended to be a guide for the student of community development, and to provide a basis for the study of the social element in the development of a community.

The social element in the development of a community is a complex and multifaceted phenomenon. It is the result of a number of factors, including the physical environment, the economic system, the political system, and the cultural system. The social element is the result of the interaction of these factors, and it is the result of the interaction of the individual and the community.

The social element in the development of a community is a complex and multifaceted phenomenon. It is the result of a number of factors, including the physical environment, the economic system, the political system, and the cultural system. The social element is the result of the interaction of these factors, and it is the result of the interaction of the individual and the community.

The social element in the development of a community is a complex and multifaceted phenomenon. It is the result of a number of factors, including the physical environment, the economic system, the political system, and the cultural system. The social element is the result of the interaction of these factors, and it is the result of the interaction of the individual and the community.

The social element in the development of a community is a complex and multifaceted phenomenon. It is the result of a number of factors, including the physical environment, the economic system, the political system, and the cultural system. The social element is the result of the interaction of these factors, and it is the result of the interaction of the individual and the community.

## SOCIAL ELEMENT

The social element in the development of a community is a complex and multifaceted phenomenon. It is the result of a number of factors, including the physical environment, the economic system, the political system, and the cultural system. The social element is the result of the interaction of these factors, and it is the result of the interaction of the individual and the community.

The social element in the development of a community is a complex and multifaceted phenomenon. It is the result of a number of factors, including the physical environment, the economic system, the political system, and the cultural system. The social element is the result of the interaction of these factors, and it is the result of the interaction of the individual and the community.







## INTRODUCTION

We all recognize whether it is our desire to or not, that the social needs of our citizens increasingly are being laid on the doorstep of local government for solution and resolution. As stated by the East Bay Division of the League of California Cities:

"As the pressures of our urban society increase and 'participatory democracy' grows, the City Council, as the most accessible governmental body, is continuously confronted with demands for solution to all problems -- not just public works and public safety matters.

"The Administration's 'new federalism' is committed to place the responsibility for the resolution of conflict on the shoulders of the local governmental body.

"In short, pressures are growing: 'the monkey is on our back' and elaborate explanations to constituents of why we are not responsible and can't do anything about various problems simply are not acceptable to the citizens whom we represent."

Some cities are accepting this challenge as an opportunity to improve human conditions. These cities are instituting new social programs in addition to the traditional social programs. Cities for years have been in the social field with leisure time activities (recreation, parks, golf courses, auditoriums, support of cultural organizations), youth services, special programs for the senior citizens, etc. Social service is not a new activity for cities.

This area of service, however, is becoming more complex and fragmented. Social services are planned, controlled, funded or delivered by a variety of public and private agencies: the federal government, the state government, counties, school districts, cities and a host of private agencies. ("Centralized social planning for the private agencies is accomplished by local United Ways in most communities. In major communities such as Los Angeles, San Francisco, San Diego, Sacramento and San Jose, United Way-sponsored planning councils provide a coordinating and planning mechanism used by public and private agencies in varying degrees.") Notwithstanding these efforts, the fact is that existing social services are highly fragmented and suffer from a lack of comprehensive planning and coordination. In addition, many social problems, because of their inter-relationship with the total environment, require area as well as local solutions. This being the case, each city should be aware of plans relating to human services and the services that are being delivered by other agencies, public and private, to its citizens. The City should establish a procedure for making input to the plans of these other agencies and for monitoring the services that are provided.

Social problems exist in all cities. However, each city, because of its size, its location, its economic base and its people, is distinct from any other city. Certainly cities can fall into groupings or patterns because of key similarities, but in the end, cities, like people, are each different and their needs for, and responses to, social programs



will vary. Consequently, uniformity in programs will do a disservice to the social service system and to the people of the cities. Program flexibility, locally determined, appears to be the key to any social service proposal.

Under today's pressures, the city's concern for the proper delivery of social services must be elevated to equal status with other city functions, such as public safety, land use control and public works. The solutions to social problems, social planning and social services must be part of the on-going municipal planning, budgeting and evaluation procedures.

In order to begin addressing and solving some of the procedural issues discussed above regarding delivery of social services, the City Council directed the Community Relations Commission (now known as the Community Services Board) to prepare a Social Element to the Santa Rosa General Plan. To accomplish this, the Commission reviewed various approaches to drafting a Social Element; discussed with officials from the League of California Cities various methods of identifying social need; reviewed materials from various cities and counties to ascertain their approach to integrating physical and social planning; and reviewed the draft Social Element with representatives of various social service agencies which serve Santa Rosa.

The result of the Community Relations Commission's efforts is this Social Element.

The Social Element to the Santa Rosa General Plan is a policy document. As such, it will provide a guide to decision-makers on matters which affect the quality of life of the residents of the Planning Area.

Planning is by and for people. Therefore, it is important to plan for social as well as physical needs. While a well-conceived physical plan is necessary to the quality of life, effort must be directed toward the total well-being of residents. Thus the Social Element should be looked upon as an umbrella under which all other planning efforts take place.

The Social Element seeks to integrate physical and social planning. The goals will serve as a guide to solving social problems in the General Plan area.

The following are principle goals of the Social Element:

1. Define the role of the City in social planning;
2. Provide social goals that will improve the quality of life of the residents in the General Plan area;
3. Provide a social base for all aspects of planning and community development;



4. Maximize use of available community resources to meet local needs; and
5. Encourage the free exchange of information between citizens and city government.

The Social Element is organized into six major sections:

1. Relationship Between Social and Physical Planning.
2. The Existing Social Service Delivery System.
3. The Role of the City in Social Planning and the Delivery of Social Services.
4. Objectives and Policies.
5. Action Plan.
6. Community Profile (Not included in this summary report).

#### RELATIONSHIP BETWEEN SOCIAL AND PHYSICAL PLANNING

Historically, city planning in the United States has focused primarily upon the physical development of the community by providing a working guide for the local arrangements of physical facilities. The present trend toward greater concern for the control of on-going development based upon analysis of population, economy, transportation and land use evolved approximately fifty years ago; and since that time, city planners have spent considerable time and effort attempting to influence the city's physical growth.

City planning was seen as an instrument to be used by the leaders of the community in establishing policy directed at insuring the efficient use of land while maintaining acceptable aesthetic qualities. These were essentially physical concerns, and it was recognized that local government could and should provide overall direction and coordination in guiding development within the community.

While basic social concerns were not addressed to any great extent, it was felt that the concerns over functional relationships between physical facilities was a means to foster better social and economic conditions by establishing land use patterns conducive to maintaining viable local economies. While this position may have some merit, it basically fails to come to grips with pressing issues of social organization and interaction. This failure was exemplified in recent years by the attempts to eliminate blight through physical development which in essence undertook physical means to improve social conditions with limited success.

There is a need to establish a planning process which reflects the intimate relationships between the social and physical realities which must be addressed when establishing community development policies, and which can provide the basis for not only enhancing the physical environment, but the social environment as well.



## THE EXISTING SOCIAL SERVICE DELIVERY SYSTEM

In Sonoma County there are over 250 social service agencies, both public and private, which deliver a wide variety of services and represent a complex inter-relationship of funding and administrative patterns. This delivery cannot accurately be called a "system", because the lack of coordination and long-range planning has resulted in a number of problem areas, including duplication and gaps in services.

### Public Sector

Many major programs have been initiated by the federal government under the Department of Health, Education and Welfare. They are delegated to the states for additional funding and regulatory powers and are delivered at the local level. Therefore, county welfare departments and county health departments become prime sponsors for a large number of programs.

Several years ago, public assistance programs separated income maintenance functions from social service functions. This has resulted in many clients not receiving services such as housing and employment assistance, legal aid, drug abuse, alcoholism or family counseling.

The federal government also has funded various programs under the administration of the Office of Economic Opportunity (OEO). Sonoma County People for Economic Opportunity is the local OEO-initiated agency which delivers services specifically to the low-income population, including Headstart, employment, senior citizens programs, emergency food, medical assistance, transportation, advocacy, and community organization. With the transfer of the OEO programs at the federal level and severe cutbacks in funding, direct services to the poor are being affected.

### Private Sector

Most national voluntary health organizations, like Cancer, Heart, and Lung Associations, operate on a regional basis. They are able to provide limited financial assistance, counseling, transportation and medical services to persons with specific health problems.

A large number of private, non-profit agencies operate within the General Plan area. They are the result of the community's concern for the disadvantaged; and although many receive governmental grants, many are funded through United Way contributions, fees and fund-raising events. Ideally these voluntary service agencies have the potential for developing innovative and experimental programs to meet needs not addressed by public agencies. Realistically, however, they are under-funded and under-staffed, and are often bound to programs which are not based upon community needs and/or do not receive broad community support.



## Problems

A number of problems become apparent in this fragmented method of delivery:

1. Competition for limited resources resulting in insufficiency of funds in nearly all programs. Funding is not always allocated according to identified priorities, but on political or emotional basis.
2. Under-utilization of revenue sharing funds for social services.
3. Lack of coordination of activities and services by the various agencies. This is due to many factors, including insufficient exchange of information between agencies, and little commitment to coordination.
4. Separate and uncoordinated facilities for social service agencies. This makes accessibility difficult, causes transportation problems, client confusion, and increases agency costs.
5. Duplication of services. Two or more agencies may be providing the same services for the same client group.

A well-coordinated, integrated "systems approach" is necessary in the Planning Area to ensure that social services are delivered effectively and efficiently. Such a system must include:

1. Allocation of resources on the basis of identified need;
2. Centralized information and referral;
3. Establishment of a multi-use community service center to house social service agencies serving the citizens of Santa Rosa;
4. A transportation system that can bring persons needing service to various service centers;
5. Cooperative social planning by the county, cities and private agencies.

## CITY'S ROLE IN SOCIAL PLANNING AND THE DELIVERY OF SOCIAL SERVICES

### Social Planning

The City's role in social planning shall be to ensure that the social and physical impacts of community development are evaluated on an equal basis.



## The Delivery of Social Services

It is the City's responsibility to create for its citizens an environment in which available resources, public and private, can be brought to bear to alleviate social problems. In carrying out this responsibility the City must become an active participant in the community's affairs. There are several roles which the City can assume.

### Service Provider

The City, as a provider, shall continue to deliver traditional City social services such as:

Police and Fire Protection  
Transit  
Community Planning

Equal Employment Opportunity  
Housing Assistance  
Recreation

In addition, City boards and commissions will recommend to the City Council other service areas in which the City may wish to become involved either directly or indirectly.

### Service Catalyst

As a service catalyst the City shall initiate action among other public and private agencies to solve social problems.

### Service Advocate

As a service advocate the City shall encourage all public and private social service agencies to:

1. Eliminate gaps and overlaps in the delivery of social services;
2. Share social data and information on an equal basis; and
3. Develop goals which address identified community needs.

### Service Regulator/Monitor

As a regulator/monitor the City will set standards of performance in the delivery of social services and monitor the delivery of such services in the community. Additional areas of responsibility in this role shall include monitoring of physical development to ensure that social impacts are addressed adequately.



## OBJECTIVES AND POLICIES

### OBJECTIVE 1

INTEGRATE PHYSICAL AND SOCIAL PLANNING.

#### POLICY 1

Ensure that social impacts of proposed projects are assessed prior to construction approval.

#### POLICY 2

Continue to identify and define social planning needs in relation to physical planning and community development.

### OBJECTIVE 2

A STRONG AND DIVERSIFIED ECONOMIC BASE FOR SANTA ROSA.

#### POLICY 1

Seek out environmentally-acceptable industries which would increase the employment opportunities of the area's current manpower base. Encourage location of such industries in Santa Rosa.

#### POLICY 2

Revitalize areas of the community in danger of deteriorating. Establish these areas as high priority locations for economic development programs.

#### POLICY 3

Guide economic development efforts in accordance with locally-defined and agreed-upon growth policies.

### OBJECTIVE 3

PROMOTE EQUALITY OF OPPORTUNITY, UNDERSTANDING AND ACCEPTANCE OF ALL PEOPLE OF VARIOUS RACIAL, ETHNIC, RELIGIOUS, SOCIAL BACK-  
GROUNDS.

#### POLICY 1

Promote educational efforts which lead to a better understanding of the various racial, ethnic, religious and social backgrounds.

#### POLICY 2

Support equal employment efforts by public and private employers.

#### POLICY 3

Ensure that appointees to advisory boards and commissions are representative of all residents served by the City.



#### OBJECTIVE 4

ENCOURAGE THE PROVISION OF ADEQUATE HEALTH CARE FOR ALL CITIZENS.

##### POLICY 1

Promote equal access to available health care resources.

##### POLICY 2

Encourage coordination of health planning with related activities such as welfare, education, vocational rehabilitation, environment, and housing.

#### OBJECTIVE 5

ENCOURAGE THE PROVISION OF SAFE, ADEQUATE AND AFFORDABLE HOUSING FOR ALL CITIZENS.

##### POLICY 1

Give first priority to the unmet needs of low- and moderate-income families.

##### POLICY 2

Enhance the quality of life for all residents by promoting stable, well-designed and appropriately served residential environments.

##### POLICY 3

Promote economically and racially balanced communities. Insure all citizens equal opportunity for choice of residential locations.

##### POLICY 4

Keep abreast of all available sources of funds to meet housing needs.

##### POLICY 5

Improve deteriorating residential areas through the expansion of existing housing programs and initiation of new ones.

#### OBJECTIVE 6

PROVIDE ADEQUATE RECREATIONAL FACILITIES AND PROGRAMS FOR ALL CITIZENS.

##### Policy 1

Continue to develop well-balanced system of parks, recreation facilities, and open space to meet the recreational needs of the community. Locate these facilities in areas which are easily accessible to all of the city's residents.



## POLICY 2

Identify areas of outstanding recreation potential and make adequate provisions for their preservation.

## POLICY 3

Give special consideration for the development of adequate recreational facilities to deprived areas.

## POLICY 4

Include area residents in the planning process to determine what types of facilities and programs are needed.

## POLICY 5

Ensure that recreation programs serve all segments of the population.

## OBJECTIVE 7

PROMOTE A BALANCED TRANSPORTATION SYSTEM TO MEET THE NEEDS OF ALL CITIZENS.

## POLICY 1

Encourage a transportation system which would provide ready access to employment, social, recreational and cultural activities at a reasonable cost.

## POLICY 2

Establish the special needs of the elderly, handicapped and the youth as a high priority in the design and operation of the transit system.

## POLICY 3

Provide transit services at a fare low enough to encourage use by all economic groups.

## POLICY 4

Encourage alternative modes for commuting to employment centers within Santa Rosa.

## OBJECTIVE 8

CONSIDER CITIZEN INPUT IN THE DECISION-MAKING PROCESS.



## POLICY 1

Provide clear and effective methods through which citizen input may become known and used.

## POLICY 2

Encourage community organizations and individuals to participate, and seek their advice on community needs and issues.

## POLICY 3

Motivate citizens to work together to solve community problems. Foster a sense of neighborhood and community pride.

## ACTION PLAN

Since it is the responsibility of the City to create an environment in which available resources can be brought to bear to alleviate social problems in the community, this Action Plan is presented in an effort to provide the City with general guidelines in carrying out the Element's stated goals.

To ensure that the Community Services Board has adequate resources to carry out this Action Plan, it should have permanent staff.

### The Integration of Physical and Social Planning

1. The Community Services Board shall review that portion of the City Code relating to Environmental Impact Reports, identify potential social impacts of physical development and make recommendations to the City Council regarding amendments to ensure that social issues are evaluated on an equal basis with physical and environmental issues.
2. The City shall actively work with public and private social service agencies and other units of government to promote coordination of services.

### A Strong and Diversified Economic Base for Santa Rosa

1. The City will create favorable conditions which will encourage diversified and environmentally-acceptable industries to locate in Santa Rosa at reasonable cost.
2. The City will encourage economic development and redevelopment of blighted areas.

### The Promotion of Equality of Opportunity, Understanding and Acceptance of All People of Various Racial, Ethnic, Religious Social Backgrounds

1. The Community Services Board shall develop, for the City Council, guidelines for representation of all segments of the community in the appointment of persons to City Boards and Commissions.



2. The Community Services Board shall develop a model affirmative action plan to be used as a basis for the design and implementation of such plans by public and private agencies.

#### Adequate Health Care for All Citizens

1. The City shall monitor health services in the City to determine their adequacy, and make recommendations to appropriate agencies to correct any inadequacies.
2. The City will encourage efforts in the community to educate the public as to proper health care.
3. The City will regulate the type and location of community care facilities.

#### Safe, Adequate and Affordable Housing for All Citizens

1. The City will be abreast of all available sources of housing funds and use these funds to meet community needs.
2. The City shall encourage banks and other lending institutions to provide loans to qualified applicants to buy or improve homes and businesses in declining neighborhoods.
3. The City shall continue the code enforcement program and encourage rehabilitation of existing dwellings rather than constructing new housing.

#### Adequate Recreational Facilities and Programs for All Citizens

1. The City shall develop neighborhood and community parks consistent with the needs of the areas in which they are located.
2. The City will explore the feasibility of opening the Community Center at night and on weekends.
3. The City will encourage the use of neighborhood schools as neighborhood recreational centers.

#### A Balanced Transportation System to Meet the Needs of All Citizens

1. The special needs of the elderly, handicapped and youth shall have special consideration in developing current transit plans.
2. The City shall explore the feasibility of utilizing school buses during off hours for special transit needs.

#### Citizen Input Will be Reflected in the Decision-Making Process

1. The City shall develop an on-going comprehensive citizen participation program to ensure representation.

INSTITUTE OF GOVERNMENTAL STUDIES LIBRARY  
100 PHILOSOPHY HALL  
UNIVERSITY OF CALIFORNIA  
BERKELEY, CA 94720



77 01992

U.C. BERKELEY LIBRARIES



123320123

The Community Services Board shall be  
 authorized to be used as a basis for  
 evaluation of such plans of service and

Advisory Health Care for All Citizens

1. The City shall continue to provide in the City or other  
 areas that already have a health care facility to provide  
 a wide range of health care services.
2. The City will encourage efforts in the community to educate  
 the public as to proper health care.
3. The City will continue to give and facilitate in community care  
 facilities.

Safe, Adequate and Affordable Housing for All Citizens

1. The City will be aware of all available sources of housing  
 and will make every effort to meet community needs.
2. The City shall encourage public and other lending institutions  
 to make loans to qualified applicants to buy or improve  
 housing and to the extent practicable, to provide  
 financing for the construction of new housing.
3. The City shall continue the code enforcement program and  
 encourage the public to report violations of housing codes  
 and to cooperate in the enforcement process.

Recreational Services and Facilities for All Citizens

1. The City shall continue to develop neighborhood and community parks con-  
 sidering the needs of the residents and the areas in which they are located.  
 and shall encourage the use of existing facilities.
2. The City will explore the feasibility of opening the community  
 center to the public and in some cases, to provide  
 a place for the community to meet and discuss common  
 interests.
3. The City will encourage the use of neighborhood schools as  
 neighborhood recreational centers.

A Balanced Transportation System to Meet the Needs of All Citizens

1. The City shall continue to develop and improve the existing  
 transportation system and shall encourage the use of  
 public transportation.
2. The City shall explore the feasibility of providing school  
 buses during the hours for special transit needs.
3. The City shall continue to develop and improve the existing  
 transportation system and shall encourage the use of  
 public transportation.

1. The City shall continue to develop and improve the existing  
 transportation system and shall encourage the use of  
 public transportation.



CITY COUNCIL

Clement R. Guggiana, Mayor  
Donna M. Born  
Gerald M. Poznanovich  
Gregory Jones, Jr.  
Murray A. Zatman

Kenneth R. Blackman, City Manager

PLANNING COMMISSION

B. Scott Foster, Chairman  
Wende Cooper  
Frances Dias  
Michael D. Senneff  
John A. Godsey  
Ernest Crownover  
Craig Roland

COMMUNITY DEVELOPMENT DEPARTMENT

James K. Burns, Director  
Robert Bruce Anderson, Comprehensive Planning Director  
Charles J. Regalia, Senior Planner  
Roy W. Anderson, Associate Planner  
Nancy Blank, Community Development Technician  
Sandra Senchuk, Community Development Technician  
Cecelia Casper, Secretary  
Donna Helwig, Secretary  
Cynthia Speicher, Clerk Stenographer



